



Customer-Focused Solutions

FACILITY RESPONSE PLAN OAKLAND POWER PLANT

Prepared For:

Duke Energy – Oakland, LLC
Oakland, California

Prepared By

TRC
Pismo Beach, California

Project No. 41-0388-08

July 2004

Qualified Individual:

Luis Medina
Oakland Power Plant Production Team Leader
50 Martin Luther King Jr. Way
Oakland, California 94607
(510) 251-6863 (Day)
(831) 229-6860

RECORD OF CHANGES

OAKLAND POWER PLANT – FACILITY RESPONSE PLAN

Revision No.	Description of revision	Pages effected	Revision Date	Date Entered	Revision Entered by
1	Updated Table of Contents according to changes	Table of Contents	July 2004		
	Updated internal phone numbers & QI names on all forms.	AP-1, AP-11, AP-13, 1-1, 1-12, 1-13			
	Changed format of Emergency Notification Phone List and Spill Response Notification Form.	AP-2 to AP-7, 1-4 to 1-9			
	Clarified equipment testing and deployment requirements. Changed equipment inspection from monthly to quarterly.	AP-10, 1-12			
	The primary evacuation route was switched to the secondary evacuation route and vice versa.	AP-12, 1-13, Figure 2			
	Clarify drill requirements as per PREP Guidelines. Re-worded drill log section.	1-32 to 1-33			
	Updated format of Tables H-1 and H-2	Apx. H			
	Updated National Preparedness for Response Exercise Program (PREP) Guidelines to 2002 edition	Apx. I			

**CONTROLLED COPY LIST
FACILITY RESPONSE PLAN
OAKLAND POWER PLANT**

BOOK NUMBER	BOOK LOCATION	ISSUED TO
1	Oakland Power Plant	Plant Manager
2	Oakland Power Plant	Production Team Leader
3	Moss Landing Power Plant	Production Superintendent
4	Moss Landing Power Plant	Environmental Scientist
5	Moss Landing Power Plant Units 6 and 7 Control Room	Operating Foreman
6	Morro Bay Power Plant	Regional Environmental Manager
7	EPA – Region IX	Steve Calanog
8	Unassigned	
9	Unassigned	

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1	Site Location Map
2	Evacuation Routes
3	Facility Layout/Drainage Map

EMERGENCY RESPONSE ACTION PLAN

FORM 1 - QUALIFIED INDIVIDUAL INFORMATION

Facility Name: Oakland Power Plant
Owner Name: Duke Energy-Oakland, LLC
Facility Identification Number: CAT080011679 (EPA ID#)

Name: Luis Medina
Position: Production Team Leader
Work Address: 50 Martin Luther King Jr. Way, Oakland, CA 94607
Plant Office: (510) 251-6860
Cell Phone: (831) 229-5851
Pager: (877) 905-8325
Home: (510) 583-7300
Fax Number: (510) 251-6880
Emergency 24-hour Number: (831) 229-5851

Alternate: Noel Valdez
Position: MLPP Production Team Leader
Work Address: Highway 1 and Dolan Road, Moss Landing, CA 95039
Telephone Number: (831) 633-6770
Cell Phone: (831) 402-4862
Pager: (877) 509-6109
Fax Number: (831) 633-7320
Emergency 24-hour Number: (831) 229-5860

FORM 2 - EMERGENCY NOTIFICATION PHONE LIST**DUKE INTERNAL NOTIFICATIONS**

CONTACT	PHONE NUMBER
Qualified Individual:	Luis Medina (510) 251-6860 - day (831) 229-5851 - 24 hour
Alternate Qualified Individual:	Noel Valdez (831) 633-6770 - day (831) 229-5860 - 24 hour
DEGS Moss Landing Power Plant Control Room Operator, Emergency Contact Number:	(831) 633-7333
Company Response Team: 24-hour Emergency	(831) 633-7333
Duke Energy External Relations Contact:	(805) 595-5597

REQUIRED EXTERNAL AGENCY NOTIFICATIONS

ORGANIZATION	PHONE NUMBER
National Response Center (NRC):	1-800-424-8802
California Office of Emergency Services (OES):	(800) 852-7550
Local Emergency Planning Committee (LEPC): 24-hour Emergency	U.S. Coast Guard Marine Safety Office* (510) 437-3073

* This is also the contact number for the Federal-On-Scene Coordinator and Area Committee

NOTE: Notification to NRC and OES should be conducted immediately after spill is discovered. It is not necessary to wait for all information before calling NRC and OES

OAKLAND EMERGENCY SERVICES

ORGANIZATION	PHONE NUMBER
Oakland Fire Department:	911 or (510) 444-1616
Oakland Police Department:	911 or (510) 238-3211

ADDITIONAL EXTERNAL NOTIFICATIONS

ORGANIZATION	PHONE NUMBER
NRC / Foss Environmental	(800) 337-7455 / 510-749-1390
California Department of Fish and Game - Office of Oil Spill Prevention and Response	(888) 334-2258
California Dept. of Toxic Substances Control	(510) 540-3734
Local Response Team: Alameda County Health Services	(510) 271-4320
California State Highway Patrol:	911
East Bay Municipal Utility District:	(510) 879-8582
Weather Report:	(831) 656-1725
Hospitals: Summit Medical Center	911 or (510) 653-6622
PG&E Control Center (notification to Oakland substation C)	(510) 437-2810
Ambulance: American Medical Response	911 or (510) 655-4000
Port of Oakland:	(510) 627-1100
Port Environmental Compliance Supervisor:	Jeff Jones
Business	(510) 627-1360
Cellular	(510) 773-9988
Pager	(510) 288-2372
Associate Port Environmental Scientist:	Michael McMillan
Business	(510) 627-1406
Cellular	(510) 773-9989
Pager	(510) 288-2380

Date of last update: July 2004

FORM 3 - SPILL RESPONSE NOTIFICATION FORM

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Internal Notifications	
Qualified Individual (QI) Lou Medina 831- 229-5851 / Noel Valdez 831-633-6770 QI name: _____ QI phone number: _____ QI contacted by whom: _____ Date/Time contacted: _____ Notes: _____	Moss Landing Power Plan Control Room 831-633-7333 MLPP C.R. operator name: _____ Control Rm. number: _____ MLPP C.R. contacted by whom: _____ Date/Time contacted: _____ Notes: _____

External Notifications	
National Response Center (NRC)* 800-424-8802 NRC contact name: _____ Person notifying NRC: _____ Date/Time contacted: _____ NRC control number: _____ Notes: _____ <i>Contact to NRC should be made immediately after MLPP Control Room is notified of the release</i>	California Office of Emergency Services* 800-852-7550 OES contact name: _____ Person notifying OES: _____ Date/Time contacted: _____ OES control number: _____ Notes: _____ <i>Contact to OES should be made in conjunction with or immediately following NRC notification</i>
Local Emergency Planning Committee (LEPC) (US Coast Guard Marine Safety Office) 510-437-3073 LEPC contact name: _____ Person notifying LEPC: _____ Date/Time contacted: _____ Notes: _____ <i>Contact to LEPC should be made immediately following notification to NRC and OES</i>	Oakland Emergency Services (Fire Dept.) 911 911 operator name: _____ Person notifying 911: _____ Date/Time contacted: _____ Notes: _____ <i>If appropriate, contact to 911 should be made immediately by either Oakland or MLPP</i>

* Notifications to NRC and OES are required to be made immediately after a release has been discovered. However, notifications should not interfere with the possibility of controlling the release. Oakland Power Plant personnel should take defensive actions first to control the release and then begin notifications to 911 (if appropriate), MLPP Control Room and Qualified Individual. The MLPP Control Room Operators once notified should immediately start external notifications to NRC and OES.

Other Notifications	
NRC / Foss Environmental 800-337-7455 OR 510-749-1390 NRC Rep. Name: _____ Person notifying NRC: _____ Date/Time contacted: _____ NRC ETA on-site: _____ Notes: _____	PG&E Substation (510) 437-2810 PG&E Contact Name: _____ Person notifying PG&E: _____ Date/Time contacted: _____ Notes: _____

INITIAL INFORMATION

Time received initial phone call to MLPP Control Room: _____ a.m./p.m.

Person reporting from Oakland phone number: _____
(phone number that MLPP can use to call back for additional information if necessary)

Person reporting from Oakland first & last name: _____

Position: _____

Did the person reporting the spill to MLPP notify:

☐ 911☐ Qualified Individual☐ NRC / Foss Environmental

(If any notifications were made – Be sure to document them on Page 1 of this Form.)

Are there any injuries that require immediate assistance? ☐ YES ☐ NO (If yes, determine what can be done to assist the person reporting the spill.)**GENERAL INFORMATION**

(Note for MLPP Control Room Operator: The following questions will be asked by agencies when external notifications are made. Do your best to complete this form by obtaining information from Oakland personnel. However, notifications to NRC and OES should not be delayed due to incomplete information. Follow-up notifications to agencies can be made when additional information is received.)

MLPP Control Room Phone Number: 831-633-7333

MLPP Operator's First & Last Name: _____

Company: Duke Energy-Oakland, LLCOrganization Type: Electric Generation Power PlantAddress: 50 Martin Luther King Jr. Way City: Oakland State: CA Zip: 94607-3512Does the caller reporting the incident to agency wish to remain confidential? ☐ YES ☒ NOIs the caller reporting incident to agency calling for Responsible Party? ☐ YES ☐ NOIs your company responsible for the material released? ☐ YES ☐ NO**INCIDENT DESCRIPTION**

Source and/or Cause of Incident (brief description of incident any response actions taken): _____

Date of Incident: ____--____--

Time of Incident: _____ a.m./p.m.

Type of incident: Fixed Facility (as per description required for NRC notification)

Incident Cause:

☐ transport incident ☐ equipment failure ☐ operator error ☐ natural phenomenon ☐ dumping☐ terrorism ☐ criminal intent ☐ unknown ☐ other _____

INCIDENT LOCATIONIncident Address/Location: 50 Martin Luther King Jr. Way - Oakland, CA 94607Note: The fuel oil storage tank is located at - 50 Jefferson Street - Oakland, CA 94607Nearest City: Oakland State: CA County: Alameda Zip: 94607-3512Distance from City: within City of Oakland limits Unit of Measure: N/ADirection from City: Facility is within city limits along Oakland Inner Harbor, just west of Jack London Square. The fuel storage tank is approximately 170 feet from the Oakland Inner Harbor.

Section: _____ Township: _____ Range: _____

Container Type: _____ Tank Oil Storage Capacity: _____

Facility Oil Storage Capacity: 2,100,000 gallonsFacility Latitude (North): 37 Degrees 47 Minutes 45 SecondsFacility Longitude (West): 122 Degrees 16 Minutes 48 SecondsBuilding ID: 00-905-8343 Dunn & Bradstreet Number Facility Type: Power PlantCompliance with NPDES Permits: ☐ YES ☐ NO Power Generating Facility: ☒ YES ☐ NO**MATERIAL**

Material	CHRIS ⁽¹⁾ Code	Amount Released	Unit of Measure	Current Tank Capacity
<u>Jet Fuel A</u>	<u>JPF</u>	_____	_____	_____
<u>Diesel Oil #2</u>	<u>GOC</u>	_____	_____	_____
_____	_____	_____	_____	_____

⁽¹⁾CHRIS: Chemical Hazards Response Information System**IMPACT TO WATER - Complete only for releases that have impacted water**Amount in Water: _____ Body of water affected: Oakland Inner HarborOffshore? ☐ Yes ☐ No River Mile Marker: N/A Tributary of: _____Water Supply Contaminated? ☐ Yes ☐ No ☐ unknown Water Temperature: _____

Wave Condition:

☐ calm ☐ smooth ☐ slight ☐ moderate ☐ rough ☐ very rough ☐ high ☐ very high
☐ precipitous ☐ confused

Wave Speed: _____ Direction: _____

SHEEN INFORMATION - Complete only for releases that have impacted water

Sheen Length: _____ Sheen Width: _____

What is the color of the sheen?

☐ Barely Discernable ☐ Brown ☐ Dark Brown ☐ Dark Black ☐ Light Black ☐ Light Brown
☐ Rainbow ☐ Silvery ☐ Yellowish Brown ☐ unknown

Direction of Sheen Movement: _____ Odor Description: _____

Medium Affected: _____

Additional information about Medium: _____

Is there a Fire? ☐ Yes ☐ No ☐ unknown

Is the Fire Extinguished: ☐ Yes ☐ No ☐ unknown

Were there injuries? ☐ Yes ☐ No ☐ unknown Number of injuries: _____

Were there fatalities? ☐ Yes ☐ No ☐ unknown Number of fatalities: _____

Were there Evacuations? ☐ Yes ☐ No ☐ unknown Number evacuated: _____

Is there any Damage? ☐ Yes ☐ No ☐ unknown Estimated damage in dollars: _____

Are any Roads closed? ☐ Yes ☐ No ☐ unknown Road closed: _____

Are any railroad tracks closed? ☐ Yes ☐ No ☐ unknown Railroad track closed: _____

Are any air corridors closed? ☐ Yes ☐ No ☐ unknown Air corridor closed: _____

Are any waterways closed? ☐ Yes ☐ No ☐ unknown Waterway closed: _____

Was the community impacted due to material release? ☐ Yes ☐ No ☐ unknown

What is the level of Media interest? ☐ high ☐ medium ☐ low ☐ none

WEATHER CONDITIONS

Weather Conditions: ☐ foggy ☐ overcast ☐ rainy ☐ sleeting ☐ snowing ☐ sunny ☐ clear ☐ partly ☐ cloudy ☐ unknown ☐ other: _____

Air Temperature: _____ Wind Speed: _____ Wind Direction: _____

RESPONSE ACTION

Actions Taken to Correct, Control or Mitigate Incident: _____

Release secured? ☐ Yes ☐ No ☐ unknown

Duration of Release? _____ Rate of Release? _____

ADDITIONAL INFORMATION

Any information about the incident not recorded elsewhere in the report: _____

CONTACT NOTES (OPTIONAL)

Person being notified: _____

Person making call: _____

Agency: _____

Date/Time of call: _____

Agency Incident ID# _____

Call back number: _____

Notes: _____

Person being notified: _____

Person making call: _____

Agency: _____

Date/Time of call: _____

Agency Incident ID# _____

Call back number: _____

Notes: _____

Person being notified: _____

Person making call: _____

Agency: _____

Date/Time of call: _____

Agency Incident ID# _____

Call back number: _____

Notes: _____

Person being notified: _____

Person making call: _____

Agency: _____

Date/Time of call: _____

Agency Incident ID# _____

Call back number: _____

Notes: _____

Print duplicate copies of this page for extra note space.

FORM 4 - RESPONSE EQUIPMENT LIST

Date of Last Update: October 2001

1. Skimmers/Pumps - Operational Status:
Skimmers and pumps are both available from oil spill response contractors.
2. Booms - Operational Status:
Booms are available from oil spill response contractors.
3. Chemicals Stored (Dispersants Listed on EPA's NCP Product Schedule): No Dispersants used.
4. Dispersant Dispensing Equipment: None
5. Sorbents - Operational Status: Ready

YEAR PURCHASED	AMOUNT AND TYPE	ABSORPTION CAPACITY (gallons)	STORAGE LOCATION
2000	18 bags of oil absorbent sand	54	Emergency Response Shed
2000	3 boxes oil absorbent pads	15/bag	Emergency Response Shed
2000	3 boxes oil absorbent socks (8')	1.2/sock	Emergency Response Shed
2000	10' x 8" oil absorbent boom	15	Emergency Response Shed
2000	25 oil absorbent pig pans	19	Emergency Response Shed

6. Hand Tools - Operational Status: Standby

TYPE	QTY.	STORAGE LOCATION
Non-sparking shovel	4	Emergency Response Shed
55-gallon drum	2	Turbine Building
Broom, plastic	6	Emergency Response Shed
Wheelbarrow	1	Emergency Response Shed
Rubber boots	20	Emergency Response Shed
Solvex-butyl gloves	26	Emergency Response Shed
laytex gloves	1 box	Emergency Response Shed
Scrub brush	2	Emergency Response Shed
Flashlight	--	Various

7. Communication Equipment - Operational Status: On-line or Standby

TYPE	QTY.	STORAGE LOCATION/NUMBER
Telephone	Various	Various locations throughout facility
Cell phones	Various	Various
Walkie Talkies	Various	Various

8. Firefighting and Personnel Protective Equipment - Operational Status: Ready

TYPE	QTY.	STORAGE LOCATION
CO ₂ fire extinguisher	3	Various locations throughout facility
Dry chemical fire extinguisher	Various	Various locations throughout facility
Halon type fire extinguisher	Various	Various locations throughout facility
Hose reel stations	Various	Various locations throughout facility
Automatic water spray deluge system	3	Units 1, 2 and 3
High pressure carbon dioxide flooding system	3	Units 1, 2 and 3
First-aid Kit	1	Maintenance Shop

9. Other (e.g., Heavy Equipment, Boats and Motors) - Operational Status: Standby

TYPE	QTY.	STORAGE LOCATION
Plug-n'-Dike	3	Emergency Response Shed
Penetone (55 gallon drum)	2	Emergency Response Shed
Foam quick draw plug 2' x 2'	1	Emergency Response Shed
Kim wipes	3	Emergency Response Shed
Sand bags	12	Oil Storage Tank Area
Materials, clothing and equipment for the cleanup of oil releases	Various	Emergency Response Shed

Heavy equipment is available from oil spill response contractors.

FORM 5 - RESPONSE EQUIPMENT TESTING AND DEPLOYMENT

The Plant has pre-arranged contracts with an OSRO to provide response equipment in the event of an incident. This equipment is exercised annually by the OSRO. During these exercises, a representative sample of response equipment identified in this plan is deployed and operated in its intended operating environment. The Plant verifies this exercise requirement is fulfilled annually and obtains documentation from the OSRO stating the exercise was completed. Appendix B of this plan includes evidence of contracts with an OSRO and a listing of OSRO available equipment.

The plant has a limited amount of facility-owned response equipment that is stored in the Emergency Response Equipment Storage Shed and is ready for mobilization. Additional response stations are located adjacent to units 1, 2 and 3, and within the Fuel Storage Tank area. The onsite equipment is limited to absorbents (sand, pads, socks and booms), hand tools, PPE, communication equipment and fire extinguishers. This equipment is intended to be support to OSRO equipment, the facility does not own equipment in volumes listed in the PREP Guidelines. Deployment of this type of equipment is not complicated and therefore, it is not necessary for the Plant to conduct semi-annual equipment deployment exercises.

The facility-owned equipment is inspected quarterly using Table H-2 "Quarterly Response Equipment Inspection Log" found in Appendix H of this plan. After equipment is used, it is either disposed of or cleaned, repaired and returned to service. If lost or damaged beyond repair, it is promptly replaced.

FORM 6 - RESPONSE PERSONNEL

Date of Last Update: April 2003

1. Facility Response Team

JOB TITLE/POSITION	NAME	RESPONSE TIME (hour)	PHONE (day)	PHONE (24 hour Emergency)
Qualified Individual	Luis Medina	0.5	(510) 251-6860	(831) 229-5851
Alternate Qualified Individual	Noel Valdez	2.0	(831) 633-6770	(831) 229-5860
Plant Manager	Elton McCrillis	2.0	(831) 633-6746	(888) 305-1786 Pgr.
Production Superintendent	Rex Lewis	2.0	(831) 633-6698	(831) 229-5855
Production Team Leader	Various	2.0	(831) 633-6601	(831) 633-6741
Environmental Scientist	Steve Abbott	2.5	(831) 633-6649	(831) 229-5872
Environmental Scientist	Lee Genz	2.0	(831) 633-6785	(831) 229-5873
Environmental Scientist	Terry Dwan	2.0	(831) 633-6738	(831) 229-5888
Health and Safety Specialist	Don Dickerson	2.0	(831) 633-7313	(831) 596-7106

2. Emergency Response Contractor

CONTRACTOR	PHONE	RESPONSE TIME (hour)	CONTRACT RESPONSIBILITY
NRC / Foss Environmental	1 (800) 337-7455 / (510) 749-1390	1.0	All Levels of Response

FORM 7 - EVACUATION PLANS

See Figure 2 – Evacuation Routes

Onsite personnel will be alerted via the Plant fire alarm or verbally. Onsite personnel have a predesignated reporting location and staging area to report to, to be accounted for, and to receive emergency assignments. The primary evacuation route from the Plant is via the main gate onto Martin Luther King Jr. Way. The secondary evacuation route from the Plant is via the East Wing onto Jefferson Street. The evacuation routes from the Fuel Storage Tank area are via the two gates onto either Jefferson Street or Embarcadero Street.

FORM 8 - OIL SPILL RESPONSE - IMMEDIATE ACTIONS⁽¹⁾

1. Stop the product flow, only if safe to do so.	Act quickly to secure pumps, close valves, etc.
2. Warn personnel.	Enforce safety and security measures.
3. Shut off ignition sources, only if it is safe to do so.	Motors, electrical circuits, open flames, etc.
4. Initiate containment, only if it is safe to do so.	Around the tank and/or the impacted area with oil boom.
5. Notify the Qualified Individual: Luis Medina Noel Valdez (Alternate) Oakland Power Plant	Day / Office: (510) 251-6860 24-Hour Emergency / cell: (831) 229-5851 Day / Office: (831) 633-6770 24-Hour Emergency / Cell: (831) 402-4862 (510) 251-6860
6. Fill Out Spill Response Notification Form	Emergency Response Action Plan – Form 3

(1) These actions are further described in Section 1.7 of the Facility Response Plan.

FORM 9 - DIAGRAMS

Figure 1 shows the Site Location Map.

Figure 2 is a Site Plan showing the evacuation routes.

Figure 3 is a Facility Layout showing the relevant site features and the Site Drainage Plan.

1.0 FACILITY RESPONSE PLAN

This Facility Response Plan (FRP) has been prepared for the Duke Energy-Oakland, LLC Oakland Power Plant located at 50 Martin Luther King Jr. Way in Oakland, California. This FRP has been prepared in accordance with and to fulfil the requirements for FRPs in 40 CFR 112.

1.1 QUALIFIED INDIVIDUAL INFORMATION

Qualified Individual:

Name:	Luis Medina
Position:	Production Team Leader
Work Address:	50 Martin Luther King Jr. Way, Oakland, CA 94607
Plant Office:	(510) 251-6860
Cell Phone:	(831) 229-5851
Pager:	(877) 905-8325
Home:	(510) 583-7300
Fax Number:	(510) 251-6880
Emergency 24-hour Number:	(831) 229-5851

Alternate Qualified Individual:

Alternate:	Noel Valdez
Position:	MLPP Production Team Leader
Work Address:	Highway 1 and Dolan Road, Moss Landing, CA 95039
Telephone Number:	(831) 633-6770
Cell Phone:	(831) 402-4862
Pager:	(877) 509-6109
Fax Number:	(831) 633-7320
Emergency 24-hour Number:	(831) 229-5860

Response training experience for the Qualified Individual or their designee:

The Qualified Individual participates in the ongoing training programs for the Oakland Power Plant. The training programs are functional in nature according to job tasks for supervisory and nonsupervisory personnel. Additionally, the Qualified Individual participates in emergency response drills and exercises described in Section 1.8.2. The drills and exercises include simulated spill scenarios and response actions.

1.2 FACILITY INFORMATION

Date of Last Update: October 2001

Facility Name: Oakland Power Plant

Location: 50 Martin Luther King Jr. Way, Oakland, California 94607

County: Alameda County

Telephone Number: (510) 251-6823

Fax Number: (510) 251-6830

Latitude (North): 37 Degrees 47 Minutes 45 Seconds

Longitude (West): 122 Degrees 16 Minutes 48 Seconds

Wellhead Protection Area: Not Applicable

Owner/Operator:

Duke Energy-Oakland, LLC

Address: P.O. Box 690, Moss Landing, California 95039

Telephone Number: (408) 633-6700

Fax Number: (408) 633-6625

Oil Storage Start-up Date: June 1998⁽¹⁾

SIC Code: 4911

Current Operations:

The Oakland Power Plant functions as a peaking unit, feeding power to the regional electrical distribution grid when needed during heavy electrical demand. The Plant is manned 24 hours a day and normally operated by three operators and one Production Team leader. The Facility Layout Map is provided in Figure 3.

The Oakland Power Plant has three gas turbine-generator units - Numbers 1, 2 and 3, which utilize Jet Fuel-A or Diesel Oil #2 for power generation. There are two gas turbine engines associated with each of the three generating units. Units 1 and 2 are located inside the Old Turbine Building, which is located at the north side of the yard along Embarcadero Street. Unit 3 is located outside in the north-central portion of the Plant yard in a painted steel enclosure. Each unit is rated at 55 megawatt (MW).

(1) Duke Energy acquired the Oakland Power Plant from PG&E in June of 1998.

Fuel is received at the Facility Fuel Receiving Station through an 8-inch pipeline from various local refineries via the Kinder Morgan Pipeline Company System. The fuel is stored in a single 50,000-barrel aboveground floating roof Fuel Storage Tank located adjacent to the Plant across Jefferson Street. The Fuel Storage Tank is equipped with a secondary containment wall capable of containing the entire contents of the Tank, plus sufficient freeboard to allow for precipitation. Material Safety Data Sheets (MSDS) for Jet Fuel-A and Diesel Oil #2 are included in Appendix G.

The Fuel Receiving Station is located northeast of the 50,000-barrel Fuel Storage Tank within the block perimeter wall surrounding the secondary containment wall. It is owned, operated and maintained by Kinder Morgan and is used for the delivery of fuel to the Plant. The piping downstream of the pressure regulator to the Tank is owned, operated and maintained by the Plant.

Fuel flows from the Tank through underground pipes beneath Jefferson Street to the Fuel Pump Room located south of the Office Building. The Fuel Pump Room contains the pump equipment to transfer fuel from the Tank to the turbines.

Facility floor drains, which may contain oil, are collected in a common sump and pumped to an oily water holding tank. This wastewater is manifested offsite for recycling every 90 days. Stormwater run-off is routed to a retention pond where it is inspected prior to discharge. Discharge valves at the pond are normally maintained in the closed position.

Additional information pertaining to spill prevention and response procedures is included in the Plant's Spill Prevention Control and Countermeasures (SPCC) Plan.

Dates and Type of Substantial Expansion:

The facility was built in 1977. There has been no substantial expansion of the power plant.

1.3 EMERGENCY RESPONSE INFORMATION

1.3.1 EMERGENCY NOTIFICATION PHONE LIST

DUKE INTERNAL NOTIFICATIONS

CONTACT	PHONE NUMBER
Qualified Individual:	Luis Medina (510) 251-6860 - day (831) 229-5851 - 24 hour
Alternate Qualified Individual:	Noel Valdez (831) 633-6770 - day (831) 229-5860 - 24 hour
DEGS Moss Landing Power Plant Control Room Operator, Emergency Contact Number:	(831) 633-7333
Company Response Team: 24-hour Emergency	(831) 633-7333
Duke Energy External Relations Contact:	(805) 595-5597

REQUIRED EXTERNAL AGENCY NOTIFICATIONS

ORGANIZATION	PHONE NUMBER
National Response Center (NRC):	1-800-424-8802
California Office of Emergency Services (OES):	(800) 852-7550
Local Emergency Planning Committee (LEPC): 24-hour Emergency	U.S. Coast Guard Marine Safety Office* (510) 437-3073

* This is also the contact number for the Federal-On-Scene Coordinator and Area Committee

NOTE: Notification to NRC and OES should be conducted immediately after spill is discovered. It is not necessary to wait for all information before calling NRC and OES

OAKLAND EMERGENCY SERVICES

ORGANIZATION	PHONE NUMBER
Oakland Fire Department:	911 or (510) 444-1616
Oakland Police Department:	911 or (510) 238-3211

ADDITIONAL EXTERNAL NOTIFICATIONS

ORGANIZATION	PHONE NUMBER
NRC / Foss Environmental	(800) 337-7455 / 510-749-1390
California Department of Fish and Game - Office of Oil Spill Prevention and Response	(888) 334-2258
California Dept. of Toxic Substances Control	(510) 540-3734
Local Response Team: Alameda County Health Services	(510) 271-4320
California State Highway Patrol:	911
East Bay Municipal Utility District:	(510) 879-8582
Weather Report:	(831) 656-1725
Hospitals: Summit Medical Center	911 or (510) 653-6622
PG&E Control Center (notification to Oakland substation C)	(510) 437-2810
Ambulance: American Medical Response	911 or (510) 655-4000
Port of Oakland:	(510) 627-1100
Port Environmental Compliance Supervisor:	Jeff Jones
Business	(510) 627-1360
Cellular	(510) 773-9988
Pager	(510) 288-2372
Associate Port Environmental Scientist:	Michael McMillan
Business	(510) 627-1406
Cellular	(510) 773-9989
Pager	(510) 288-2380

Date of last update: June 2003

1.3.2 SPILL RESPONSE NOTIFICATION FORM

Internal Notifications	
<p style="text-align: center;">Qualified Individual (QI)</p> <p style="text-align: center;">Lou Medina 831- 229-5851 / Noel Valdez 831-229-5860</p> <p>QI name: _____</p> <p>QI phone number: _____</p> <p>QI contacted by whom: _____</p> <p>Date/Time contacted: _____</p> <p>Notes: _____</p>	<p style="text-align: center;">Moss Landing Power Plan Control Room</p> <p style="text-align: center;">831-633-7333</p> <p>MLPP C.R. operator name: _____</p> <p>Control Rm. number: _____</p> <p>MLPP C.R. contacted by whom: _____</p> <p>Date/Time contacted: _____</p> <p>Notes: _____</p>

External Notifications	
<p style="text-align: center;">National Response Center (NRC)*</p> <p style="text-align: center;">800-424-8802</p> <p>NRC contact name: _____</p> <p>Person notifying NRC: _____</p> <p>Date/Time contacted: _____</p> <p>NRC control number: _____</p> <p>Notes: _____</p> <p><i>Contact to NRC should be made immediately after MLPP Control Room is notified of the release</i></p>	<p style="text-align: center;">California Office of Emergency Services*</p> <p style="text-align: center;">800-852-7550</p> <p>OES contact name: _____</p> <p>Person notifying OES: _____</p> <p>Date/Time contacted: _____</p> <p>OES control number: _____</p> <p>Notes: _____</p> <p><i>Contact to OES should be made in conjunction with or immediately following NRC notification</i></p>
<p style="text-align: center;">Local Emergency Planning Committee (LEPC)</p> <p style="text-align: center;">(US Coast Guard Marine Safety Office)</p> <p style="text-align: center;">510-437-3073</p> <p>LEPC contact name: _____</p> <p>Person notifying LEPC: _____</p> <p>Date/Time contacted: _____</p> <p>Notes: _____</p> <p><i>Contact to LEPC should be made immediately following notification to NRC and OES</i></p>	<p style="text-align: center;">Oakland Emergency Services (Fire Dept.)</p> <p style="text-align: center;">911</p> <p>911 operator name: _____</p> <p>Person notifying 911: _____</p> <p>Date/Time contacted: _____</p> <p>Notes: _____</p> <p><i>If appropriate, contact to 911 should be made immediately by either Oakland or MLPP</i></p>

* Notifications to NRC and OES are required to be made **immediately** after a release has been discovered. However, notifications should not interfere with the possibility of controlling the release. Oakland Power Plant personnel should take defensive actions first to control the release and then begin notifications to 911 (if appropriate), MLPP Control Room and Qualified Individual. The MLPP Control Room Operators once notified should immediately start external notifications to NRC and OES.

Other Notifications	
<p style="text-align: center;">NRC / Foss Environmental</p> <p style="text-align: center;">800-337-7455 OR 510-749-1390</p> <p>NRC Rep. Name: _____</p> <p>Person notifying NRC: _____</p> <p>Date/Time contacted: _____</p> <p>NRC ETA on-site: _____</p> <p>Notes: _____</p>	<p style="text-align: center;">PG&E Substation</p> <p style="text-align: center;">(510) 437-2810</p> <p>PG&E Contact Name: _____</p> <p>Person notifying PG&E: _____</p> <p>Date/Time contacted: _____</p> <p>Notes: _____</p>

INITIAL INFORMATION

Time received initial phone call to MLPP Control Room: _____ a.m./p.m.

Person reporting from Oakland phone number: _____
(phone number that MLPP can use to call back for additional information if necessary)

Person reporting from Oakland first & last name: _____

Position: _____

Did the person reporting the spill to MLPP notify:

☐ 911

☐ Qualified Individual

☐ NRC / Foss Environmental

(If any notifications were made – Be sure to document them on Page 1 of this Form.)

Are there any injuries that require immediate assistance? ☐ YES ☐ NO (If yes, determine what can be done to assist the person reporting the spill.)

GENERAL INFORMATION

(Note for MLPP Control Room Operator: The following questions will be asked by agencies when external notifications are made. Do your best to complete this form by obtaining information from Oakland personnel. However, notifications to NRC and OES should not be delayed due to incomplete information. Follow-up notifications to agencies can be made when additional information is received.)

MLPP Control Room Phone Number: 831-633-7333

MLPP Operator's First & Last Name: _____

Company: Duke Energy-Oakland, LLC

Organization Type: Electric Generation Power Plant

Address: 50 Martin Luther King Jr. Way City: Oakland State: CA Zip: 94607-3512

Does the caller reporting the incident to agency wish to remain confidential? ☐ YES ☒ NO

Is the caller reporting incident to agency calling for Responsible Party? ☐ YES ☐ NO

Is your company responsible for the material released? ☐ YES ☐ NO

INCIDENT DESCRIPTION

Source and/or Cause of Incident (brief description of incident any response actions taken): _____

Date of Incident: ____--____--

Time of Incident: _____ a.m./p.m.

Type of incident: Fixed Facility (as per description required for NRC notification)

Incident Cause:

☐ transport incident ☐ equipment failure ☐ operator error ☐ natural phenomenon ☐ dumping

☐ terrorism ☐ criminal intent ☐ unknown ☐ other _____

INCIDENT LOCATION

Incident Address/Location: 50 Martin Luther King Jr. Way - Oakland, CA 94607

Note: The fuel oil storage tank is located at - 50 Jefferson Street - Oakland, CA 94607

Nearest City: Oakland State: CA County: Alameda Zip: 94607-3512

Distance from City: within City of Oakland limits Unit of Measure: N/A

Direction from City: Facility is within city limits along Oakland Inner Harbor, just west of Jack London Square. The fuel storage tank is approximately 170 feet from the Oakland Inner Harbor.

Section: _____ Township: _____ Range: _____

Container Type: _____ Tank Oil Storage Capacity: _____

Facility Oil Storage Capacity: 2,100,000 gallons

Facility Latitude (North): 37 Degrees 47 Minutes 45 Seconds

Facility Longitude (West): 122 Degrees 16 Minutes 48 Seconds

Building ID: 00-905-8343 Dunn & Bradstreet Number Facility Type: Power Plant

Compliance with NPDES Permits: ☐ YES ☐ NO Power Generating Facility: ☒ YES ☐ NO

MATERIAL

Material	CHRIS ⁽¹⁾ Code	Amount Released	Unit of Measure	Current Tank Capacity
<u>Jet Fuel A</u>	<u>JPF</u>	_____	_____	_____
<u>Diesel Oil #2</u>	<u>GOC</u>	_____	_____	_____
_____	_____	_____	_____	_____

⁽¹⁾CHRIS: Chemical Hazards Response Information System

IMPACT TO WATER - Complete only for releases that have impacted water

Amount in Water: _____ Body of water affected: Oakland Inner Harbor

Offshore? ☐ Yes ☐ No River Mile Marker: N/A Tributary of: _____

Water Supply Contaminated? ☐ Yes ☐ No ☐ unknown Water Temperature: _____

Wave Condition:

☐ calm ☐ smooth ☐ slight ☐ moderate ☐ rough ☐ very rough ☐ high ☐ very high

☐ precipitous ☐ confused

Wave Speed: _____ Direction: _____

SHEEN INFORMATION - Complete only for releases that have impacted water

Sheen Length: _____ Sheen Width: _____

What is the color of the sheen?

☐ Barely Discernable ☐ Brown ☐ Dark Brown ☐ Dark Black ☐ Light Black ☐ Light Brown

☐ Rainbow ☐ Silvery ☐ Yellowish Brown ☐ unknown

Direction of Sheen Movement: _____ Odor Description: _____

IMPACT

Medium Affected: _____

Additional information about Medium: _____

Is there a Fire? ☐ Yes ☐ No ☐ unknown

Is the Fire Extinguished: ☐ Yes ☐ No ☐ unknown

Were there injuries? ☐ Yes ☐ No ☐ unknown Number of injuries: _____

Were there fatalities? ☐ Yes ☐ No ☐ unknown Number of fatalities: _____

Were there Evacuations? ☐ Yes ☐ No ☐ unknown Number evacuated: _____

Is there any Damage? ☐ Yes ☐ No ☐ unknown Estimated damage in dollars: _____

Are any Roads closed? ☐ Yes ☐ No ☐ unknown Road closed: _____

Are any railroad tracks closed? ☐ Yes ☐ No ☐ unknown Railroad track closed: _____

Are any air corridors closed? ☐ Yes ☐ No ☐ unknown Air corridor closed: _____

Are any waterways closed? ☐ Yes ☐ No ☐ unknown Waterway closed: _____

Was the community impacted due to material release? ☐ Yes ☐ No ☐ unknown

What is the level of Media interest? ☐ high ☐ medium ☐ low ☐ none

WEATHER CONDITIONS

Weather Conditions: ☐ foggy ☐ overcast ☐ rainy ☐ sleeting ☐ snowing ☐ sunny ☐ clear ☐ partly ☐ cloudy ☐ unknown ☐ other: _____

Air Temperature: _____ Wind Speed: _____ Wind Direction: _____

RESPONSE ACTION

Actions Taken to Correct, Control or Mitigate Incident: _____

Release secured? ☐ Yes ☐ No ☐ unknown

Duration of Release? _____ Rate of Release? _____

ADDITIONAL INFORMATION

Any information about the incident not recorded elsewhere in the report: _____

CONTACT NOTES (optional)

Person being notified: _____

Person making call: _____

Agency: _____

Date/Time of call: _____

Agency Incident ID# _____

Call back number: _____

Notes: _____

Person being notified: _____

Person making call: _____

Agency: _____

Date/Time of call: _____

Agency Incident ID# _____

Call back number: _____

Notes: _____

Person being notified: _____

Person making call: _____

Agency: _____

Date/Time of call: _____

Agency Incident ID# _____

Call back number: _____

Notes: _____

Person being notified: _____

Person making call: _____

Agency: _____

Date/Time of call: _____

Agency Incident ID# _____

Call back number: _____

Notes: _____

Print duplicate copies of this page for extra note space.

1.3.3 RESPONSE EQUIPMENT LIST

Date of Last Update: October 2001

1. Skimmers/Pumps - Operational Status:

Skimmers and pumps are both available from oil spill response contractor.

2. Booms - Operational Status:

Booms are available from oil spill response contractor.

3. Chemicals Stored (Dispersants Listed on EPA's NCP Product Schedule): No Dispersants used.

4. Dispersant Dispensing Equipment: None

5. Sorbents - Operational Status: Ready

YEAR PURCHASED	AMOUNT AND TYPE	ABSORPTION CAPACITY (gallons)	STORAGE LOCATION
2000	18 bags of oil absorbent sand	54	Emergency Response Shed
2000	3 boxes oil absorbent pads	15/bag	Emergency Response Shed
2000	3 boxes oil absorbent socks	1.2/sock	Emergency Response Shed
2000	10' x 8" oil absorbent boom	15	Emergency Response Shed
2000	25 oil absorbent pig pans	19	Emergency Response Shed

6. Hand Tools - Operational Status: Standby

TYPE	QTY.	STORAGE LOCATION
Non-sparking shovel	4	Emergency Response Shed
55-gallon drum	2	Turbine Building
Broom, plastic	6	Emergency Response Shed
Wheelbarrow	1	Emergency Response Shed
Rubber boots	20	Emergency Response Shed
Solvex-butyl gloves	26	Emergency Response Shed
Platex gloves	1 box	Emergency Response Shed
Scrub brush	2	Emergency Response Shed
Flashlight	--	Various

7. Communication Equipment - Operational Status: On-line or Standby

TYPE	QTY.	STORAGE LOCATION/NUMBER
Telephone	Various	Various locations throughout facility
Cell phones	Various	Various
Walkie Talkies	Various	Various

8. Firefighting and Personnel Protective Equipment - Operational Status: Ready

TYPE	QTY.	STORAGE LOCATION
CO ₂ fire extinguisher	3	Various locations throughout facility
Dry chemical fire extinguisher	Various	Various locations throughout facility
Halon type fire extinguisher	Various	Various locations throughout facility
Hose reel stations	Various	Various locations throughout facility
Automatic water spray deluge system	3	Units 1, 2 and 3
High pressure carbon dioxide flooding system	3	Units 1, 2 and 3
First-aid Kit	1	Maintenance Shop

9. Other (e.g., Heavy Equipment, Boats and Motors) - Operational Status: Standby

Heavy equipment is available from oil spill response contractor.

TYPE AND YEAR	QTY.	STORAGE LOCATION
Plug-n'-Dike	3	Emergency Response Shed
Penetone (55 gallon drum)	2	Emergency Response Shed
Foam quick draw plug 2' x 2'	1	Emergency Response Shed
Kim wipes	3	Emergency Response Shed
Sand bags	12	Oil Storage Tank Area
Materials, clothing and equipment for the cleanup of oil releases	Various	Emergency Response Shed

1.3.4 RESPONSE EQUIPMENT TESTING/DEPLOYMENT

The Plant has pre-arranged contracts with an OSRO to provide response equipment in the event of an incident. This equipment is exercised annually by the OSRO. During these exercises, a representative sample of response equipment identified in this plan is deployed and operated in its intended operating environment. The Plant verifies this exercise requirement is fulfilled annually and obtains documentation from the OSRO stating the exercise was completed. Appendix B of this plan includes evidence of contracts with an OSRO and a listing of OSRO available equipment.

The plant has a limited amount of facility-owned response equipment that is stored in the Emergency Response Equipment Storage Shed and is ready for mobilization. Additional response stations are located adjacent to units 1, 2 and 3, and within the Fuel Storage Tank area. The onsite equipment is limited to absorbents (sand, pads, socks and booms), hand tools, PPE, communication equipment and fire extinguishers. This equipment is intended to be support to OSRO equipment, the facility does not own equipment in volumes listed in the PREP Guidelines. Deployment of this type of equipment is not complicated and therefore, it is not necessary for the Plant to conduct semi-annual equipment deployment exercises.

The facility-owned equipment is inspected quarterly using Table H-2 "Quarterly Response Equipment Inspection Log" found in Appendix H of this plan. After equipment is used, it is either disposed of or cleaned, repaired and returned to service. If lost or damaged beyond repair, it is promptly replaced.

1.3.5 RESPONSE PERSONNEL

Date of Last Update: October 2003

Emergency Response Personnel List

NAME	PHONE (24 hour Emergency)	RESPONSE TIME (hour)	RESPONSIBILITY DURING RESPONSE ACTION	TRAINING TYPE/DATE
Luis Medina	(831) 229-6860	0.5	Qualified Individual	OSHA 1910.120 (q) 8-hour Incident Commander Aug. 2002
Noel Valdez	(831) 229-5860	2.0	Alternate Qualified Individual	OSHA 1910.120 (q) 8-hour Incident Commander Aug. 2002
Elton McCrillis	(888) 305-1786	2.0	Plant Manager	OSHA 1910.120 (q) 8-hour Incident Commander Aug. 2002
Steve Abbott	(831) 229-5872	2.5	Environmental Scientist	OSHA 1910.120 (q) 8-hour Incident Commander Aug. 2002
Lee Genz	(831) 229-5873	2.0	Environmental Scientist	OSHA 1910.120 (q) 8-hour Incident Commander Aug. 2002 HAZWOPER refresher Mar. 2003
Terry Dwan	(831) 229-5888	2.0	Environmental Scientist	OSHA 1910.120 (q) 8-hour Incident Commander Aug. 2002 HAZWOPER refresher Jun. 2003
Don Dickerson	(831) 596-7106	2.0	Health and Safety Specialist	OSHA 1910.120 (q) 8-hour Incident Commander Aug. 2002

Facility Response Team

JOB TITLE/POSITION	NAME	RESPONSE TIME (hour)	PHONE (day)	PHONE (24 hour Emergency)
Qualified Individual	Luis Medina	0.5	(510) 251-6860	(831) 229-5851
Alternate Qualified Individual	Noel Valdez	2.0	(831) 633-6770	(831) 229-5860
Plant Manager	Elton McCrillis	2.0	(831) 633-6746	(888) 305-1786 Pgr.
Production Superintendent	Rex Lewis	2.0	(831) 633-6698	(831) 229-5855
Production Team Leader	Various	2.0	(831) 633-6601	(831) 633-6741
Environmental Scientist	Steve Abbott	2.5	(831) 633-6649	(831) 229-5872
Environmental Scientist	Lee Genz	2.0	(831) 633-6785	(831) 229-5873
Environmental Scientist	Terry Dwan	2.0	(831) 633-6738	(831) 229-5888
Health and Safety Specialist	Don Dickerson	2.0	(831) 633-7313	(831) 596-7106

Emergency Response Contractor

CONTRACTOR	PHONE	RESPONSE TIME (hours)	CONTRACT RESPONSIBILITY
NRC / Foss Environmental	1 (800) 337-7455 / (510) 749-1390	1.0	All Levels of Response

Appendix B contains documentation of contractual agreements and list of equipment available from the emergency response contractor.

1.3.6 EVACUATION PLAN

Evacuation routes for the facility and the Fuel Storage Tank area are depicted in Figure 2. Onsite personnel will be alerted via the plant fire alarm or verbally. Onsite personnel have a pre-designated reporting location and staging area to report to, to be accounted for, and to receive emergency assignments. The primary evacuation route from the Plant is via the main gate onto Martin Luther King Jr. Way. The secondary evacuation route from the Plant is via the East Wing onto Jefferson Street. The evacuation routes from the Fuel Storage Tank area are via the two gates onto either Jefferson Street or Embarcadero Street.

1.3.7 QUALIFIED INDIVIDUAL'S DUTIES

The Qualified Individual is familiar with the facility operations and activities at the facility, the location and characteristics of material waste handled, the location of records within the facility, and the facility layout. In addition, the Qualified Individual has the authority to commit the resources to carry out the FRP.

Whenever there is an imminent or actual emergency situation such as an explosion, fire, or significant release, the Qualified Individual (or their designee) will:

- Identify the character, exact source, amount, and extent of the released hazardous materials, if any. The Qualified Individual may do this by observation or review of facility records or manifests and, if necessary, by requesting a chemical analysis.
- Assess possible hazards to human health and the environment that may result from the explosion, fire, or release. This assessment will consider both direct and indirect effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions.
- Activate appropriate internal facility alarms and communication systems, to notify appropriate personnel.
- Notify response personnel and OSROs, as needed.
- When practical, notify the California Office of Emergency Services at (800) 852-7550, the National Response Center at (800) 424-8802, or the U.S. Coast Guard Marine Safety Office at (510) 437-3073.
- Notify other appropriate local authorities and organizations with designated response roles (police, fire, paramedics), if their help is needed.
- Monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment shut down in response to the incident.
- Take all reasonable measures necessary to ensure that fires, explosions, or releases do not occur, recur, or spread to other hazardous materials at the facility. These measures will include, where applicable, stopping processes and operations, collecting and containing released material or waste, and removing or isolating containers.
- Take other reasonable measures necessary to abate hazards to persons, property or the environment.
- Assess the interaction of the discharged substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment.

- Assess and implement prompt removal actions to contain and remove the substance released.
- Coordinate rescue and response actions as previously arranged with all response personnel.
- Use authority to immediately access company funding to initiate cleanup activities.
- Direct cleanup activities until properly relieved of this responsibility.

If the Qualified Individual determines that a release, fire, or explosion could threaten human health, or the environment outside the facility, he/she must report these findings as follows:

1. If the assessment indicates that evacuation of local areas may be advisable, the Qualified Individual would immediately notify appropriate emergency response units. The Qualified Individual would be available to help appropriate officials decide whether local areas should be evacuated.
2. Notify appropriate agencies.
3. When practical, the Qualified Individual should notify the government officials designated as the on-scene coordinator for that geographical area, the National Response Center at (800) 424-8802, or the California Office of Emergency Services at (800) 852-7550. The report would include:
 - a. Name and telephone number of reporter.
 - b. Name and address of facility.
 - c. Time and type of incident.
 - d. Name and quantity of material(s) involved, to the extent known.
 - e. The extent of injuries, if any.
 - f. The possible hazards to human health, or the environment outside the facility.

Immediately after an emergency, the Qualified Individual will provide for treating, storing or disposing of recovered material or waste, contaminated soil, surface water, or any other material that results from a release, fire or explosion at the facility.

The Qualified Individual will ensure that, in the affected area(s) of the facility:

1. No material or waste that may be incompatible with the released material will be handled until cleanup procedures are completed.
2. Emergency equipment listed in the equipment list is cleaned and fit for its intended use before operations are resumed.

Prior to the facility resuming operation after an emergency, the appropriate agencies should be notified that the facility is in compliance with the provisions listed above.

The Qualified Individual will note in the Operating Record the time, date and details of any incident that requires implementing the FRP.

1.4 HAZARD EVALUATION

1.4.1 HAZARD IDENTIFICATION

Hazard Identification Tanks

TANK NUMBER	SUBSTANCE STORED (Oil & Hazardous Substance)	QUANTITY STORED (gallons)	TANK TYPE/YEAR	MAXIMUM CAPACITY (gallons)	FAILURE/CAUSE
A-FO-1	Jet Fuel-A or Diesel Oil #2	1,400,000	Steel with Floating Roof/1977	2,100,000	No failures have occurred to this tank.

The inventory of oil-filled equipment and spill prediction data is presented in Appendix E.

1.4.1.1 Transportation Related Loading and Unloading of Tanks

Loading and unloading of transportation vehicles are not conducted at the facility. Fuel is received at the Plant from various local refineries via the Kinder Morgan system. The system supplies the 50,000-barrel floating roof Fuel Storage Tank through an 8-inch tank filling line.

A former diesel fuel truck loading facility located in the southern portion of the plant yard is not currently utilized for receiving fuel since fuel is provided by pipeline. However, a supply line is present from the Fuel Storage Tank to the truck loading facility.

1.4.1.2 Day to Day Operations

Existing controls and equipment to minimize the inadvertent release of oil are described below:

- When receiving a fuel delivery to the Fuel Storage Tank, communication is maintained via telephone line between the individual responsible for observing the delivery and the Kinder Morgan Operator in Richmond, California. During the receiving process, barrel counts are continually made via receiving line meter. Level observations are made with an externally mounted float-actuated strapping gauge. A high-level alarm

system with shutdown capability is also provided. In addition, the fill line is provided with a shut-off valve capable of shutting off flow to the Tank in case of a communication breakdown.

- Pumps and valves used for the transfer of oil are locked when not in use. The pumps are left in such condition that an unauthorized person could not cause oil to be pumped by merely pushing the start/stop switch.
- The floors of the Turbine Building have trench and floor drains to divert oil releases into the No. 3 Sump and then to the Oily Water Storage Tank. The turbine enclosures have troughs around the inside that drain releases to interior drains that flow to the No. 3 Sump, which is pumped to the Oily Water Storage Tank.
- Each electric generator unit has a visual level gauge, an alarm for low level and a low-level trip for oil gauging. The operator visually checks oil reservoir levels on a routine basis. If an alarm is initiated or there is a significant change in oil levels, immediate corrective actions are taken.
- During a shutdown, each unit purges a small amount of fuel from the fuel manifold to a designated dump tank. Fuel levels in dump tanks are monitored weekly by the operator. Dump tank contents are pumped to the Oily Water Storage Tank when necessary.
- In the event of a leak, the turbine units automatically shut down if the oil available for lubrication falls below a preset value.

1.4.1.3 Secondary Containment

Secondary containment is provided around the aboveground 50,000-barrel Fuel Storage Tank (A-FO-1), the Fuel Receiving Station, and the Fuel Tank Piping Area.

The Fuel Storage Tank is surrounded by a circular steel retention wall designed to contain the entire volume of the Tank, plus sufficient freeboard to accommodate rainfall. The total capacity of the secondary containment totals 57,423 barrels.

The Fuel Receiving Station is located northeast of the Fuel Storage Tank within a block secondary containment wall. The entire receiving station is below ground level and enclosed by a 2-foot high concrete berm. The capacity of the bermed area is approximately 16,440 gallons.

The Fuel Tank Piping Area is located southwest of the Fuel Storage Tank within a below ground level secondary containment area designed to contain approximately 7,200 gallons.

Valves on drainage systems for all secondary containment areas are gate-type valves. These valves are kept closed and chain-locked except for such times as the Production Team Leader authorizes these valves to be opened to drain impounded rainwater to the Rain Water Collection Pond.

Prior to releasing water from the secondary containment areas to the Rain Water Collection Pond, the water is visually inspected to assure that it is free of oil. If the impounded water contains oil, the oil will be removed before opening the valve. After the impounded water has been drained from the secondary containment area, the block valve will be closed and locked.

1.4.1.4 Normal Throughput

When the Plant is not in operation, the engines are shut down, and therefore, no fuel is circulated through the facility. When the Plant is burning fuel, the normal average daily throughput for the facility is approximately 4,000 barrels/day. The increase and/or subsequent decrease of throughput, as a result of plant operations, will not have an effect on potential estimated discharge volumes. Fuel consumed during operation of the Plant is circulated in closed loop pipelines.

1.4.2 VULNERABILITY ANALYSIS

The potential effects to human health, property or the environment in the event of a discharge at the facility would be minimal. Oil discharged on the facility would likely remain on the facility property because of secondary containment.

In the event of a discharge, the 50,000-barrel aboveground Fuel Storage Tank is equipped with a secondary containment wall capable of containing the entire contents of the tank, plus sufficient freeboard to allow for precipitation.

For the purpose of this Plan, the appropriate planning distance for this facility is 5 miles and consists of transport mechanisms over land and on moving navigable waters. The calculation of the planning distance is outlined in Appendix D of this Plan. The planning distance calculation is based principally on a review of the public storm drain system adjacent to the Plant, the proximity of the site to tidal-influenced navigable waters (Oakland Inner Harbor) and sensitive environments, and an understanding of the likely discharge scenarios (see Section 1.5). The calculation methodology follows procedures recommended in Attachment C-III to 40 CFR Part

112, Appendix C. The location of nearby sensitive environments is shown in Appendix F of this Plan.

A total response time interval of 15 hours is specified in these regulations for calculating the planning distance for higher volume port areas such as Oakland, California. This is the time interval specified for response resources (i.e., OSROs, state and local agency teams) to respond to a significant discharge in the higher volume port area of Oakland, California. The specified time interval (15 hours) is used only to aid in the identification of whether a facility could cause substantial harm to the environment.

The total time for spilled oil to reach navigable waters over land is considered to be instantaneous due to the proximity of the facility to the Oakland Inner Harbor. Since the response time suggested by EPA is 15 hours, it is very important that a spill be contained as soon as possible before potentially impacting the environment. This could be accomplished by notifying the appropriate personnel at the Plant in order to contain spills prior to entering storm drains outside the secondary containment wall.

1.4.3 ANALYSIS OF THE POTENTIAL FOR AN OIL SPILL

1.4.3.1 Normal Operation

Turbine Engines and Generators

The electric generators and the turbine engines have oil reservoirs for lubrication. The reservoirs and associated piping are contained within the engine compartments. Each unit also has a 25-gallon water-fuel separator filter located outside the engine compartments. The floors of the compartments have trench and floor drains to divert oil releases into the No. 3 Sump and then to the Oily Water Storage Tank. There are also troughs around the inside of the Turbine Building that drain releases to interior drains that flow to the No. 3 Sump, which is pumped to the Oily Water Storage Tank.

Each electric generator has a 550-gallon turbine oil reservoir and each turbine engine has two 25-gallon lube oil reservoirs. Each unit has a visual level gauge, an alarm for low level and a low-level trip for oil gauging. The operator visually checks oil reservoir levels on a routine basis. If an alarm is initiated or there is a significant change in oil levels, immediate corrective actions are taken.

During a shutdown, each unit purges a small amount of fuel from the fuel manifold to a designated dump tank. These double-walled dump tanks have 120 gallons capacity each and are situated within concrete vaults. Fuel levels in dump tanks are monitored weekly by the operator.

Though lube oil reservoir failure is unlikely, piping leaks can occur. In the event of a leak, the units automatically shut down if the oil available for lubrication falls below a preset value. This limits the quantity of oil that could be released. The reservoirs are also located inside the Turbine Building and a leak would drain to the oily water sump (No. 3 Sump).

Fuel Storage Tank

Jet Fuel-A or diesel oil is received at the Plant from various local refineries via the Kinder Morgan system. This system supplies the 50,000-barrel Fuel Storage Tank through an 8-inch tank filling line. A separate 4-inch pipeline with a relief valve set to lift at 150 psig and discharging directly to the Fuel Storage Tank, protects the line against high pressure.

All stormwater accumulating within the Fuel Storage Tank yard area (i.e., outside the Tank secondary containment) is enclosed by the outer block containment wall and concrete berms; discharge is controlled by a normally closed and locked gate valve. This valve is opened only after checking that the stormwater is free of oil. The stormwater is then drained to the Rain Water Collection Pond.

When receiving a fuel delivery to the Fuel Storage Tank, communication is maintained via telephone line between the individual responsible for observing the delivery and the Kinder Morgan Operator in Richmond, California. During the receiving process, barrel counts are continually made via receiving line meter. Level observations are made with an externally mounted float-actuated strapping gauge. A high-level alarm system is also provided. In addition, the fill line is provided with a shut-off valve capable of shutting off flow to the Tank in case of a communication breakdown.

Oily Water Storage Tank

This tank receives the discharge from the oily water sump (No. 3 Sump). In the event of a leak, a concrete containment wall that is sufficient to hold the contents of the tank surrounds the tank. The containment area has one drain valve that is closed and locked. It is manually opened to drain rainwater that may accumulate in the area, as necessary.

Switchgear Operating Equipment (Yard Transformers)

The plant is equipped with energized oil-filled transformers. The highest potential for spillage associated with this operating equipment would result from a casing rupture. The largest

potential leakage from any single piece of equipment in the yard is 6,756 gallons. All oil, which runs off from the transformers, would drain to the catch basin/storm drain system, which flows to the Rain Water Collection Pond.

1.4.3.2 Catastrophic Event

Release volumes associated with a catastrophic event such as an earthquake or major fire are of much larger magnitudes than the previously discussed accidents potentially occurring during normal operations, but have a much lower probability of occurring. Potential worst case discharge scenarios are detailed in Section 1.5.

Turbine Engines and Generator

The largest potential release would involve the destruction of the oil reservoirs serving the turbine engines. Assuming 50 percent of the reservoirs in each unit failed, the resultant spill volume could be as high as 1,250 gallons. All oil would be contained and drained to the building's oily water Sump No. 3, then pumped to the Oily Water Storage Tank.

Fuel Storage Tank

A rupture of the Fuel Storage Tank could result in the release of large amounts of fuel. The fuel, however, would be contained by the secondary containment structure, which is designed to hold the entire contents of the tank plus sufficient freeboard for precipitation.

Switchgear Areas

The largest potential release due to such an event would involve the destruction of oil-filled equipment in the station transformer area. Assuming 50 percent of the oil-filled equipment is destroyed, the resultant release volume could be as high as 12,000 gallons. All oil, which runs off from the rock blotters surrounding the transformers, would drain to the catch basin/storm drain system, which flows to the Rain Water Collection Pond.

1.4.4 SPILL HISTORY

There have not been any reportable oil spills at the Oakland Power Plant.

1.5 DISCHARGE SCENARIOS

Precautions have been taken to minimize a spill and proper maintenance is performed on a timely basis. Therefore, the likelihood of a discharge from tanks or equipment failure is considered minimal. Nevertheless, facility-specific discharge scenarios that may contribute to a potential small, medium and worse case discharge⁽¹⁾ are discussed below.

Depending on the size of the spill and its proximity to catch basins, released oil from one of the sources described below could migrate offsite through the stormwater drainage system to nearby navigable waters and/or sensitive environments, which are located to the northeast and southwest of the facility. The probability of such migration could be greater if the release occurs during a significant storm event when the volume of spilled oil would potentially be augmented by rainfall.

Another type of multiplying effect could occur during a large earthquake when multiple systems (e.g., storage tanks and secondary containment valves) could fail. Surface drainage would largely dictate the direction of migration for a discharge.

Due to the proximity of the Fuel Storage Tank to the existing stormwater system outside the secondary containment area, a small discharge may be of sufficient capacity to migrate to offsite catch basins or surface drainage pathways. Once spilled oil reached the stormwater drainage system its path would be directed to the Oakland Inner Harbor. Therefore, a key component of this plan includes a provision for the Qualified Individual to initiate emergency spill response measures in the event a discharge could enter the stormwater drainage system.

The facility has a contract with an appropriate response contractor with equipment to effectively respond to small, medium and worst-case discharges. Additional arrangements for the cleanup of spills include:

- Emergency plans for spill response are described in the SPCC Plan.
- Contract help is available on an as-needed basis.
- Spilled material from small spills that is reclaimed will be placed in the Oily Water Storage Tank and transported to an offsite recycling facility. If the material is not usable, it will be disposed of according to State and Federal requirements.

⁽¹⁾ As per 40 CFR 112.20 (h)(5), small discharges are defined as less than 2,100 gallons. Medium discharges are defined as between 2,100 and less than or equal to 36,000 gallons, or 10 percent of the worst case discharge, whichever is less. A worst case discharge would therefore be one in which the volume of spilled oil exceeds 36,000 gallons.

1.5.1 SMALL AND MEDIUM DISCHARGE

Small and medium discharges can occur from the following sources:

- Generator oil reservoirs
- Turbine engine oil reservoirs and filters
- Transformers
- Diesel Dump Tank
- Storage Drums
- Fuel Storage Tank

Discharges resulting from equipment and piping failures or facility maintenance would be small in nature and would be localized either on paved areas within the yard, Fuel Pump Room, Maintenance Shop or inside the Turbine Building. Onsite equipment would be sufficient for cleanup.

Discharges resulting from tank failures would be contained by the surrounding secondary containment. Vacuum trucks or other portable tanks would be called in to recover the oil. In the case of a release from the lubrication oil tanks located inside the Plant, a discharge would be contained by the floor drains and pumped to the Oily Water Storage Tank. Contents of the Oily Water Storage Tank would be disposed in accordance with appropriate State and Federal regulations.

Fuel is delivered to the plant via an 8-inch tank filling line. A small or medium discharge could therefore occur in the course of such operations. However, it is unlikely that a small or medium discharge would occur since:

- The fueling operations occur under direct and continuous supervision.
- The Fuel Receiving Station is located within a 40-foot by 20-foot by 2-foot deep secondary containment area with a drain locked in the closed position.
- Discharge from a spill would be collected and/or drained via pipeline to the Rain Water Collection Pond.

It is unlikely that spills occurring during routine facility maintenance activities would constitute discharges which would invoke this plan. Rather, such releases are more appropriately addressed in the context of routine site maintenance and/or pursuant to the SPCC Plan. For example:

- Spills and washdowns within the Turbine Building would be contained and drained to the building's oily water sump, then pumped to the Oily Water Storage Tank.

- Spills and washdowns within the yard area would drain to the catch basin/storm drain system, which flows to the Rain Water Collection Pond.
- Spills in the Fuel Storage Tank area and the Fuel Receiving Station are collected in secondary containment areas and routed to the Rain Water Collection Pond.

1.5.2 WORST CASE DISCHARGE

The worst case discharge planning volume for this facility is 1,680,000 gallons (or 40,000 barrels) in accordance with guidance in Section A.1 (single tank facilities) of 40 CFR Part 112, Appendix D. A worst case discharge could occur if both the 50,000-barrel Fuel Storage Tank and the secondary containment wall were breached.

Depending on the specific portion of the secondary containment wall that was breached, spilled oil would migrate onto either Jefferson Street or Embarcadero Street and/or towards properties located adjacent to the Plant. Oil or fuel, which reached these areas, could then migrate as sheet flow and enter one or more catch basins situated in the immediate vicinity of the site. The storm drain system would then constitute potentially instantaneous drainage pathways for spilled fuel to reach navigable waters or sensitive environments.

The plant has a contract with an OSRO capable of arriving at the scene with the appropriate response equipment for a worst case discharge within the times specified below. The response would include the use of vacuum trucks and deployment of absorbent booms along potential drainage courses where fuel could collect or pool, and applicable on-water oil recovery resources. Per 40 CFR Part 112, the response times for worst case discharges are:

- Tier 1: 6 hours
- Tier 2: 30 hours
- Tier 3: 54 hours

Additional information regarding these tiers and computations for response planning resources is provided in Appendix C of this Plan.

Evidence of contracts with response organizations and a list of their available equipment are included in Appendix B.

1.6 DISCHARGE DETECTION SYSTEMS

1.6.1 DISCHARGE DETECTION BY PERSONNEL

Operating personnel conduct routine inspections of each major component of the facility to detect any leaks. Leaks or malfunctions are reported to the Plant Supervisor (Qualified Individual) or their designee who would direct and implement further actions, as necessary. These actions are described in Section 1.3.7 of this Plan regarding the Qualified Individual's Duties. Records of these inspections are kept onsite.

The procedures for routine inspection of equipment and discharge detection can be summarized as follows:

- Regular inspections of onsite equipment and oil/fuel storage facilities are performed to detect signs of deterioration and/or leaks, which might cause a spill or accumulation inside bermed areas. Controls on oil pumps are inspected to ensure they are locked in the off position during nonoperating or nonstandby status. Similarly, drains in containment structures are inspected to make sure the manual valves are locked in the closed position.
- Drainage of containment structures occurs only under constant direct supervision by qualified personnel. Immediately upon completion of activity, drain valves (if present) are returned to a closed position and locked. Prior to draining a containment structure to the Rain Water Collection Pond, the water is checked for an oil sheen. If an oil sheen is not observed, then the valve may be opened and the stormwater released.
- Master flow and drain valves (i.e., those which could potentially permit direct outward flow of the Tank's contents to the surface) are routinely inspected to ensure that they are securely locked in the closed position when a Tank is in a nonoperating or nonstandby status.
- Signs of leakage, fatigue, or undue wear on oil or oily material storage containers are reported to the facility supervisor. Repairs and/or replacement of deteriorated equipment are initiated promptly. If unsafe conditions are found, the equipment will be removed from service until repair or replacement occurs.

Detection of spilled material which could impact the site properties shall be reported according to the notification procedures described in the Emergency Response Action Plan (Form 8) and further detailed in Section 1.7 of this Plan.

1.6.2 AUTOMATED DISCHARGE DETECTION

A high-level alarm system is provided for the Fuel Storage Tank. In addition, the fill line is provided with a shut-off valve capable of shutting off flow to the tank in case of a communication breakdown. The alarms are calibrated once a year.

When receiving a fuel delivery to the Fuel Storage Tank, communication is maintained via telephone line between the individual responsible for observing the delivery and Kinder Morgan Operator in Richmond, California. During the receiving process, barrel counts are continually made via receiving line meter. Level observations are made with an externally mounted float-actuated strapping gauge.

Existing operating switchyard equipment is connected to remote oil level or malfunction alarms located in the PG&E switching station (Station C) adjacent to the Plant. Full annunciation of potential trouble is available in the switching station. In addition, visual and audible alarms are located in control stations onsite, which are monitored on a daily basis. Operations personnel are notified immediately of significant oil leakage via these alarms. Operators are dispatched to investigate the cause of the alarm and take appropriate action.

Each electric generator has a 550-gallon turbine oil reservoir and each turbine engine has two 25-gallon lube oil reservoirs. Each unit has a visual level gauge, an alarm for low level, and a low-level trip for oil gauging. The operator visually checks oil reservoir levels on a routine basis. If a significant change in oil levels is detected or if an alarm is initiated, immediate corrective action is taken.

In the event of a leak from the lube oil reservoir, the units automatically shut down if the oil available for lubrication falls below the preset value. This further limits the quantity of oil which could be released.

1.7 PLAN IMPLEMENTATION

1.7.1 RESPONSE RESOURCES FOR SMALL, MEDIUM AND WORST CASE SPILLS

1.7.1.1 Emergency Plans for Spill Response

Facility personnel are instructed and trained to implement a number of response actions upon discovery of a release. The Emergency Response Action Plan, included in the beginning of this Plan, is to be implemented in the event of a discharge. Form 8 provides instructions for immediate actions to be taken during a significant spill.

A key element of the required response actions involves notification of appropriate persons and agencies to ensure that adequate response resources are mobilized to control and contain a release of oil or fuel. The recommended spill notification procedures and the names and telephone numbers of applicable personnel and agencies are provided in the Emergency Response Action Plan Forms 8 and 2, respectively.

Whenever there is an imminent or actual emergency situation such as an explosion, fire, or significant release, the Qualified Individual (or their designee) will:

- Identify the character, exact source, amount, and areal extent of released hazardous materials, if any.
- Assess possible hazards to human health or the environment that may result from the explosion, fire, or release. This assessment will consider both direct and indirect effects of any toxic, irritating, or asphyxiating gases that are generated, the effects of hazardous surface water run-off from water or chemical agents used to control fire etc.
- Activate appropriate internal facility alarms or communications systems, to notify appropriate personnel.
- Notify response personnel and OSROs, as needed.
- Notify the California Office of Emergency Services at (800) 852-7550 or the National Response Center at (800) 424-8802, or the U.S. Coast Guard Marine Safety office at (510) 437-3073.
- Notify other appropriate local authorities and organizations with designated response roles (police, fire, paramedics), if their help is needed.
- Monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment shut down in response to the incident.
- Take all reasonable measures necessary to ensure that fires, explosions, or releases do not occur, recur, or spread to other hazardous materials at the facility. These measures will include, where applicable, stopping processes and operations, collecting and containing released material or waste, and removing or isolating containers.
- Take other reasonable measures necessary to abate hazards to persons, property or the environment.

Immediately after an emergency, the Qualified Individual will provide for treating, storing or disposing of recovered material or waste, contaminated soil, surface water, or any other material that results from a release, fire or explosion at the facility.

1.7.1.2 Additional Response Training

Response training information, including details of the drills/exercises carried out at the facility pursuant to the National Preparedness for Response Exercise Program (PREP) is provided in Section 1.8 of this Plan.

1.7.1.3 Additional Contracted Assistance

Appendix B contains a list of spill response organizations under contract to provide emergency response assistance. Procedures involved in the determination of adequate response capability for responding to a small, medium or worst case discharge is detailed in Appendix C of this Plan.

1.7.1.4 Access to Additional Equipment/Experts

The owner/operator has access to other contractors and consultants which may be called upon to provide assistance.

1.7.1.5 Ability to Implement Plan

There are periodic drills at the facilities to go over emergency procedures outlined in the FRP. In addition, SPCC plans are discussed at the yearly training classes and also at safety meetings.

1.7.2 DISPOSAL PLANS

1.7.2.1 Recovered Product

Recovered oil may be analyzed to see if it is suitable for re-use at the facility. If it does not meet certain criteria for re-use, the oil will be recycled at an approved, permitted offsite hazardous waste recycling facility.

1.7.2.2 Contaminated Soil

Contaminated soil and debris will be properly packaged and shipped to permitted waste facilities.

1.7.2.3 Contaminated Equipment

Contaminated equipment would be decontaminated, with the spoils being properly packaged and disposed of at a permitted facility or recycled. Personnel protection equipment is also disposed of at a Class I landfill.

1.7.3 CONTAINMENT AND DRAINAGE PLANNING

The power plant is located next to the Oakland Inner Harbor. The plant yard is paved with asphalt and drains by surface run-off to the Rain Water Collection Pond. The Rain Water Collection Pond is located at the south end of the yard. It is the collection point for the two catch basins in the main plant yard, the storm drains in the containment of the fuel storage area, and the yard areas adjacent to the pond.

When it is necessary to drain the Rain Water Collection Pond, the accumulated water is inspected. If no oily sheen is present, the water is released to the Oakland Inner Harbor. If there is a sheen, the sheen is removed with absorbent pads or vacuum truck before being released. Additional capacity for the Rain Water Collection Pond is provided by three 20,000-gallon Frac Tanks, situated adjacent to the pond.

There are three catch basins within the secondary containment wall of the 50,000-barrel Fuel Storage Tank. The three catch basins are equipped with gate-type valves that are normally locked closed. When it is necessary to drain the containment area, the accumulated water is inspected. If no oily sheen is present, the valve is unlocked and opened to drain to the Rain Water Collection Pond. Immediately upon completion of drainage, the valve is closed and locked in place.

Records are kept for each occasion when water is drained or pumped from secondary containment areas and are retained onsite. The record shall include the personnel involved, the date and time the impounded water was drained, the name of the area, whether oil was found in the impounded water prior to release, whether oil was removed prior to releasing the effluent and when the drain valve was closed and locked after draining.

Site drainage including flow direction is shown in Figure 3.

1.8 SELF-INSPECTION, DRILLS/EXERCISES AND RESPONSE TRAINING

1.8.1 FACILITY SELF-INSPECTION

Pursuant to 40 CFR Section 112.7(e)(8), each facility should conduct self-inspections and include the written procedures and records of inspections in the SPCC Plan. The inspection should include the tanks, secondary containment, and response equipment at the facility. The inspection of tanks and secondary containment required by the SPCC regulation and records of those inspections should be cross-referenced in the response plan. The inspection of response equipment is a new requirement in this plan. Facility self-inspection requires two steps: 1) a checklist of things to inspect; and 2) a method of recording the actual inspection and its findings. The date of each inspection shall be noted. These records are required to be maintained for 5 years.

1.8.1.1 Tank Inspection Checklist

A tank inspection checklist is provided in Appendix H of this Plan and includes tank, secondary containment and piping inspection items. The checklist is summarized below:

Tank/Piping Checklist

1. Check tanks for leaks, specifically looking for:
 - A. drip marks;
 - B. discoloration of tanks;
 - C. puddles containing spilled or leaked material;
 - D. corrosion;
 - E. cracks; and
 - F. localized dead vegetation.
2. Check foundation for:
 - A. cracks;
 - B. discoloration;
 - C. puddles containing spilled or leaked material;
 - D. settling;
 - E. gaps between tank and foundation; and
 - F. damage caused by vegetation roots.
3. Check piping for:
 - A. droplets of stored material;
 - B. discoloration;
 - C. corrosion;
 - D. bowing of pipe between supports;
 - E. evidence of stored material seepage from valves or seals; and
 - F. localized dead vegetation.

Secondary Containment Checklist

1. Check secondary containment (includes retention or drainage ponds and dike or berm systems) for:
 - A. level of precipitation/available capacity;
 - B. operational status of drain valves;
 - C. dike, berm or floor permeability;
 - D. debris;
 - E. erosion;
 - F. location/status of pipes, inlets, drainage beneath tanks, etc.;
 - G. cracks;
 - H. discoloration or corrosion;
 - I. presence of oil; and
 - J. stressed vegetation.

1.8.1.2 Response Equipment Inspection Checklist

An onsite response equipment inspection checklist is provided in Appendix H of this Plan. The checklist is developed using the Emergency Response Equipment List provided in Section 1.3.3. Each type of response equipment is inspected for the following:

1. Inventory (item and quantity).
2. Storage location.
3. Accessibility (time to access and respond).
4. Operational status/condition.
5. Actual use/testing (last test date and frequency of testing).
6. Shelf life (present age, expected replacement date).

Any discrepancies between the list and the actual equipment available will be noted. Records of these inspections are maintained in the Power Plant Administrative Office.

1.8.1.3 Secondary Containment Inspection

A checklist for inspection of the secondary containment is included in Appendix H of this Plan. The checklist includes inspection of the dike/berm system and the retention/drainage ponds and is summarized below:

1. Dike or berm system
 - A. Level of precipitation in dike/available capacity;
 - B. Operational status of drainage valves;
 - C. Dike or berm permeability;
 - D. Debris;
 - E. Erosion;
 - F. Permeability of the earthen floor of diked area; and
 - G. Location/status of pipes, inlets, drainage beneath tanks, etc.
2. Secondary containment
 - A. Cracks;
 - B. Discoloration;
 - C. Presence of spilled or leaked material (standing liquid);
 - D. Corrosion; and
 - E. Valve conditions.

3. Retention and drainage ponds
 - A. Erosion;
 - B. Available capacity;
 - C. Presence of stored material;
 - D. Debris; and
 - E. Stressed vegetation.

Operating personnel make routine inspections of oil storage and transfer equipment and secondary containments. Records of these inspections are available in the Power Plant Administrative Office.

1.8.2 FACILITY DRILLS/EXERCISES

The Plant has developed a program of facility response drills/exercises, including evaluation procedures in accordance with PREP guidelines (see excerpts included in Appendix I of this Plan). PREP guidelines specify that the following drills and exercises be conducted:

1. Quarterly Qualified Individual Notification Drills
 - This drill is intended to ensure communication between the Plant and the Qualified Individual in the event of an emergency.
 - The drill is initiated at the Plant and contact is made to the Qualified Individual.
 - One drill per year must be conducted after business hours.
2. Annual Spill Management Team Exercises
 - Intended to exercise the members of the Plant's Spill Management Team by working through an emergency response scenario utilizing this Plan and other Facility Emergency Plans.
 - The exercise should demonstrate that the Spill Management Team has knowledge of and can effectively use this plan in the event of an emergency.
 - Once in three years the scenario should involve a worst case discharge.
3. Semi-annual Equipment Deployment Exercises (for facility owned/operated equipment)
 - The Plant does not have emergency response equipment on-site that would require participation in a semi-annual deployment exercise.

4. Annual Equipment Deployment Exercises (for OSRO owned/operated equipment)

- The Plant's contracted Oil Spill Response Organization (OSRO) is required to exercise a representative sample of their emergency response equipment in an annual Equipment Deployment Exercise.
- The Plant is responsible for verifying the OSRO has completed the annual exercise and will obtain documentation stating the OSRO has fulfilled this requirement.

5. Annual Government Initiated Unannounced Exercises (if selected)

- The Plant may be selected by the EPA to participate in an Unannounced Exercise. This exercise is meant to test emergency response capabilities as described in this plan.
- If the Plant is selected for an Unannounced Exercise they will not be required to participate in a similar exercise for a period of 36 months.

1.8.2.1 Drill Logs

Forms to document completion of emergency response drills/exercises can be found in Appendix H of this Plan. Records of these drills must be maintained for 5 years.

1.8.3 RESPONSE TRAINING

A program for response training will be conducted according to guidance provided in the Training Reference for Oil Spill Response (USCG/EPA/MMS, 1994), to the extent applicable to facility operations.

Training is conducted at the time of employment and annually thereafter. Annual training shall be conducted in conjunction with the training for the facility SPCC Plan/FRP and include equipment deployment, as applicable.

The spill response training program shall address the following topics:

1. Notification requirements and procedures;
2. Communication systems;
3. Mitigation Procedures;
4. Operational capabilities, contracting, and ordering procedures for contracted OSROs;
5. Familiarity with Area Contingency Plans;
6. Applicable oil spill response laws, rules, and regulations; and
7. Familiarity with the company response organizational and management structure and designated job responsibilities.

1.8.3.1 Personnel Training Logs

Logs are maintained documenting response training for responders and operators. The logs are available in the Oakland Power Plant Office with the Qualified Individual and with the Plant Environmental Scientist at Moss Landing Power Plant as an annex to this Plan. Sample training logs are provided in Appendix H to this Plan.

1.8.3.2 Discharge Prevention Meetings Log

Discharge prevention meeting logs are available in the Administrative Office as an annex to this Plan. Sample meeting logs are provided in Appendix H to this Plan.

1.9 DIAGRAMS

Figure 1 shows the Site Location Map.

Figure 2 shows the Evacuation Routes.

Figure 3 shows the Facility Layout/Drainage Plan.

1.10 SECURITY

Security measures at this facility are designed to prevent spills due to unauthorized entry and vandalism.

The plant yard is protected by a concrete block wall topped with barbed wire on the south side, and on part of the west side. The remainder of the yard is bordered by the Old Shop Building, the structure surrounding Units 1 & 2 and the Office Building. The main plant yard has an entrance gate on Martin Luther King Jr. Way, a roll up door on Jefferson Street, and a pedestrian access door on Jefferson Street.

A concrete block wall topped with barbed wire with two locked gates, one on Jefferson Street and one on Embarcadero Street, surround the Fuel Oil Storage Tank.

Access to the Plant is limited to Duke personnel. Access to the Fuel Oil Storage Tank is limited to Duke and Kinder Morgan personnel. Entrances are kept locked at all times.

2.0 RESPONSE PLAN COVER SHEET AND CERTIFICATION

This cover sheet provides EPA with basic information concerning the facility according to requirements specified in 40 CFR Part 112.

2.1 GENERAL INFORMATION

OWNER/OPERATOR OF FACILITY: Dynegy Oakland, LLC

FACILITY NAME: Oakland Power Plant

FACILITY ADDRESS: 50 Martin Luther King Jr. Way, Oakland, California 94607-3512

FACILITY PHONE NUMBER: (510) 251-6860

LATITUDE (Degrees: North): Degrees: 37 Minutes: 47 Seconds: 45

LONGITUDE (Degrees: West): Degrees: 122 Minutes: 16 Seconds: 48

DUNN & BRADSTREET NUMBER: 00-905-8343

STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE: 4911

LARGEST ABOVEGROUND OIL STORAGE TANK CAPACITY (gallons): 2,100,000

MAXIMUM OIL STORAGE CAPACITY (gallons): 2,100,000

WORST CASE OIL DISCHARGE AMOUNT (gallons): 1,680,000

FACILITY DISTANCE TO NAVIGABLE WATER (check appropriate box):

0 - 1/4 mile ☒ 1/4 - 1/2 mile ☐ 1/2 - 1 mile ☐ > 1 mile ☐

2.2 APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

Does the facility transfer oil over water⁽¹⁾ to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons? Yes ☐ No ☒

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment⁽¹⁾ that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation? Yes ☐ No ☒

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility at a distance⁽¹⁾ (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? Yes ☒ No ☐

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance⁽¹⁾ (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake? Yes ☐ No ☒

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill⁽¹⁾ in an amount greater than or equal to 10,000 gallons within the last five years? Yes ☐ No ☒

(1) Explanations of the above-referenced terms can be found in 40 CFR 112, Appendix C.

2.3 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature: 

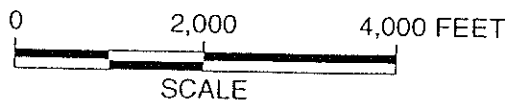
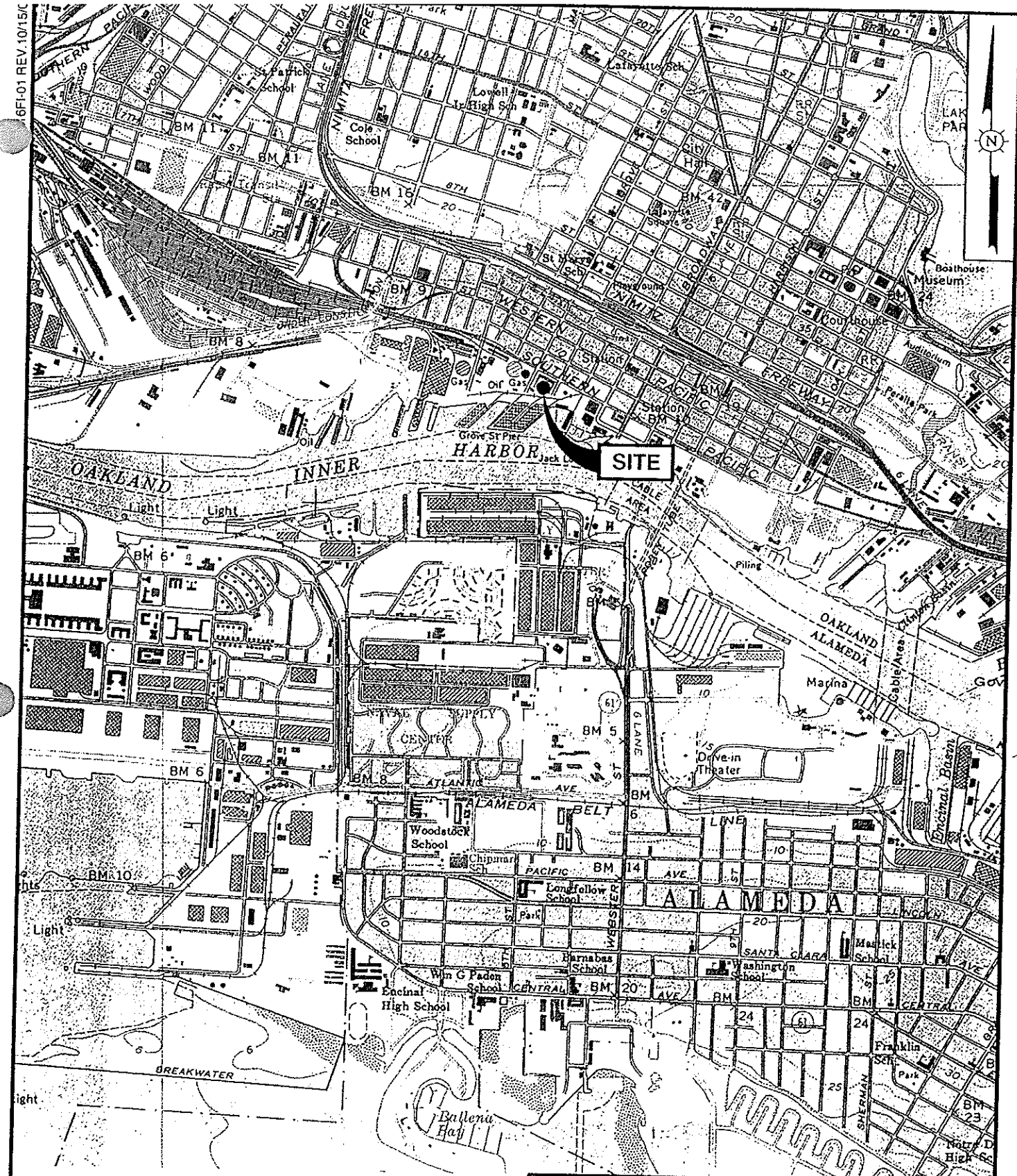
Name (please type or print): Peter J. Ziegler

Title: Managing Director

Date: 10/4/12

3.0 ACRONYMS

ACP	Area Contingency Plan
bpd	Barrels Per Day
CFR	Code of Federal Regulations
CHRIS	Chemical Hazards Response Information System
CWA	Clean Water Act
EPA	U.S. Environmental Protection Agency
FRP	Facility Response Plan
gpd	Gallons Per Day
MMS	Mineral Management Service
MSDS	Material Safety Data Sheet
MW	Megawatt
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
OES	Office of Emergency Services
OSRO	Oil Spill Response Organization
PREP	Preparedness for Response Exercise Program
psig	Pounds Per Square Inch Gauge
RCRA	Resource Conservation and Recovery Act
SPCC	Spill Prevention, Control and Countermeasures
USCG	U.S. Coast Guard



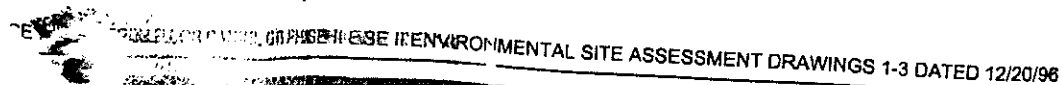
REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP OF OAKLAND WEST, CALIFORNIA, DATED 1979 AND 1980.

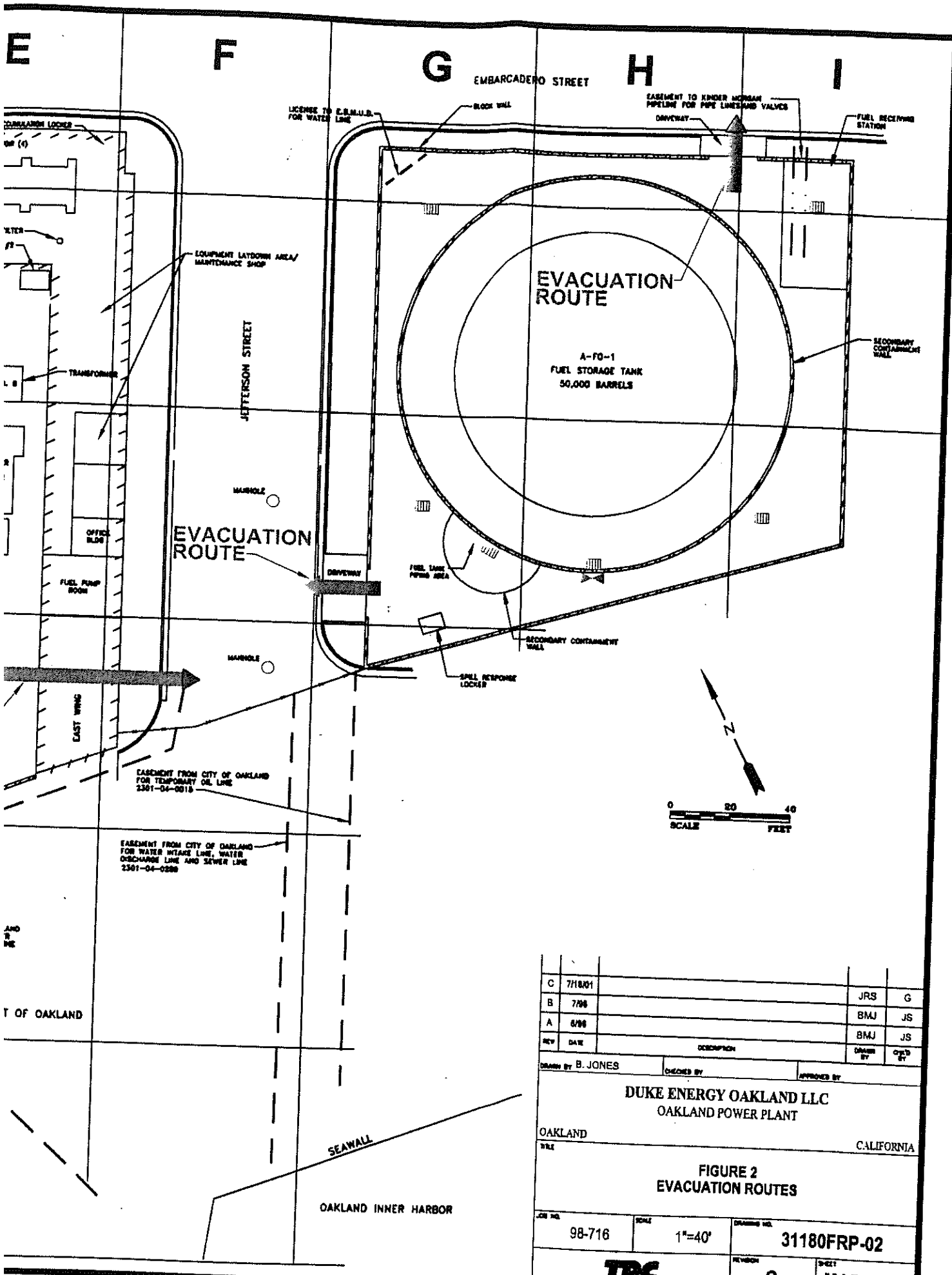
SITE LOCATION MAP

DUKE ENERGY - OAKLAND, LLC
OAKLAND POWER PLANT

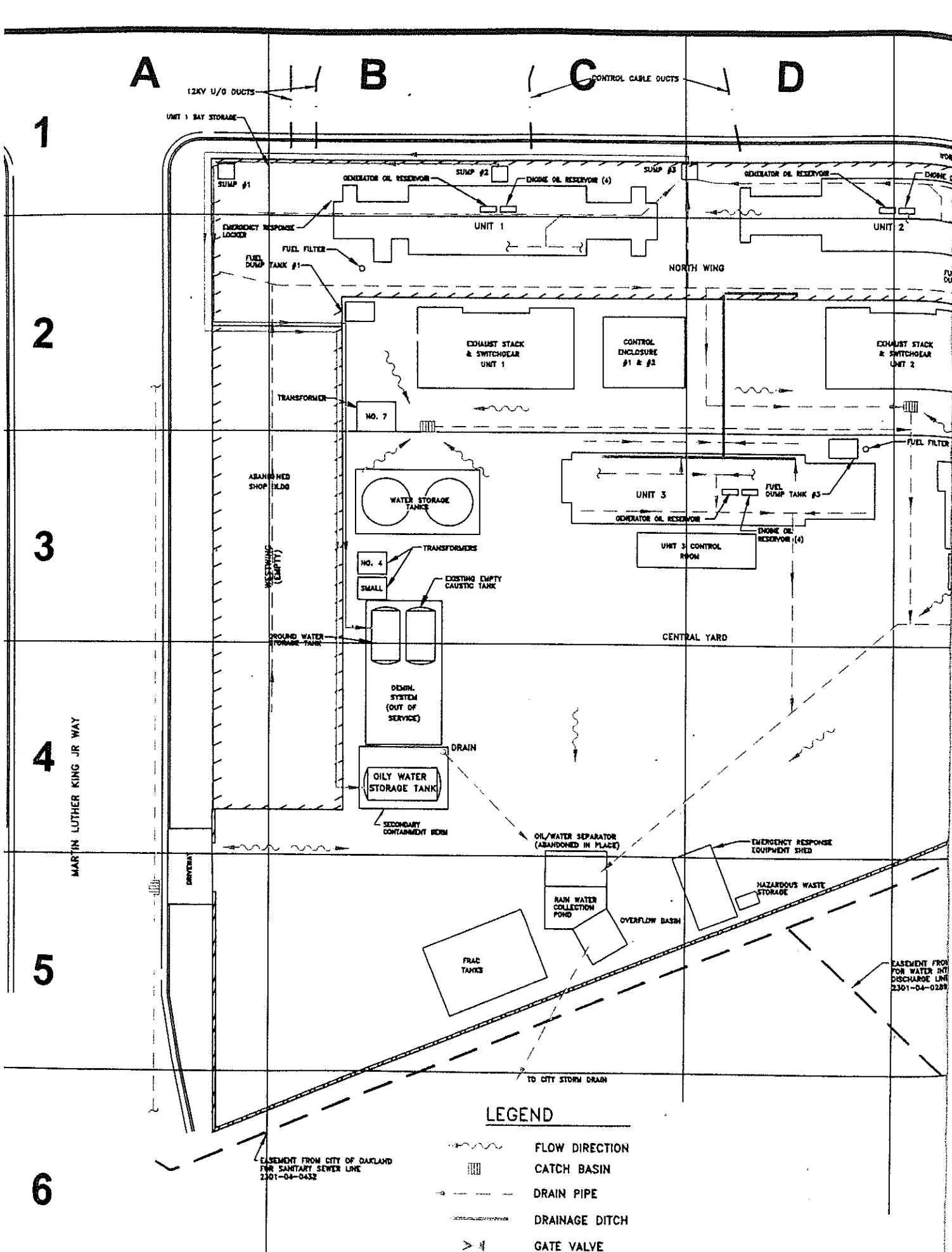
TRC

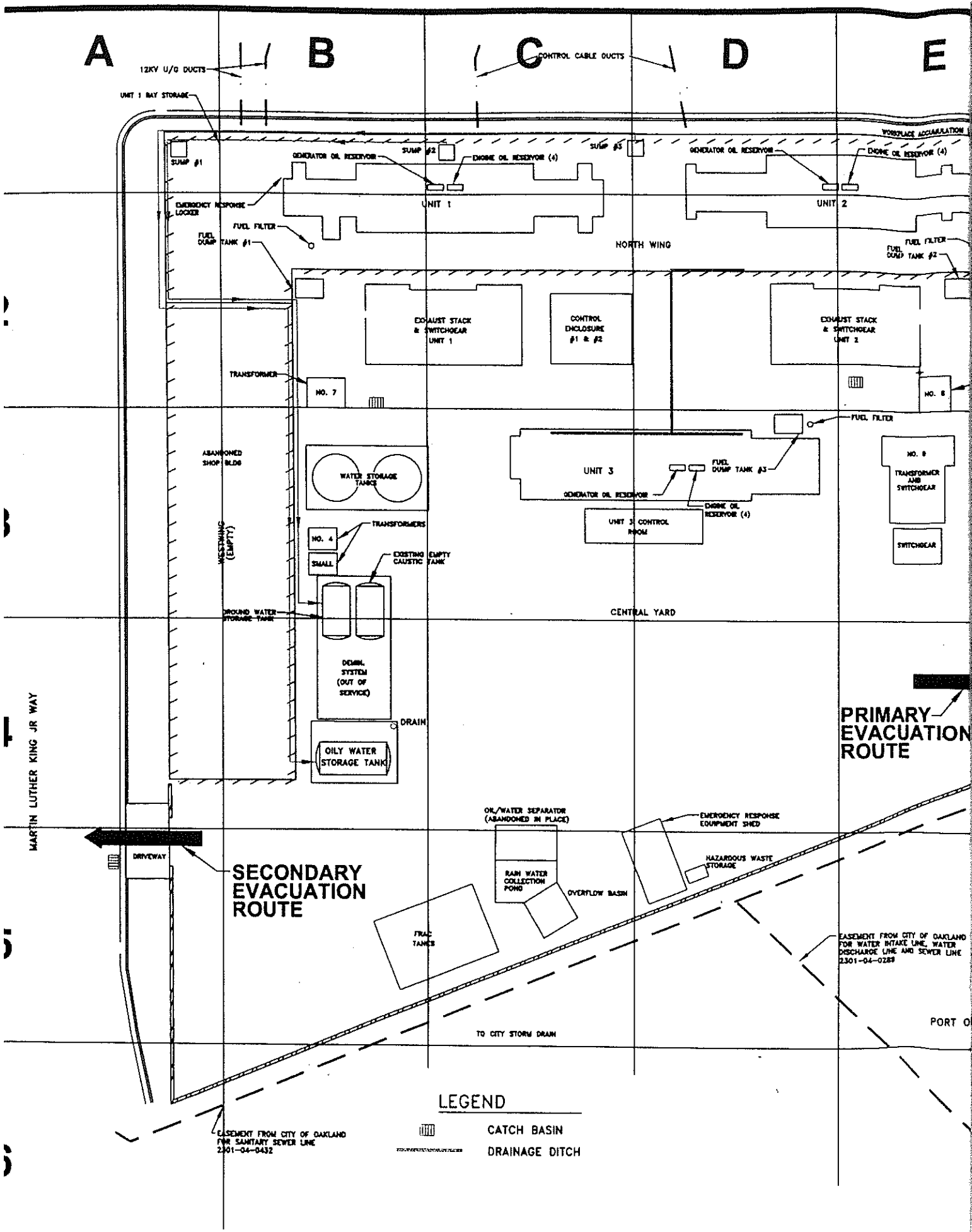
FIGURE 1

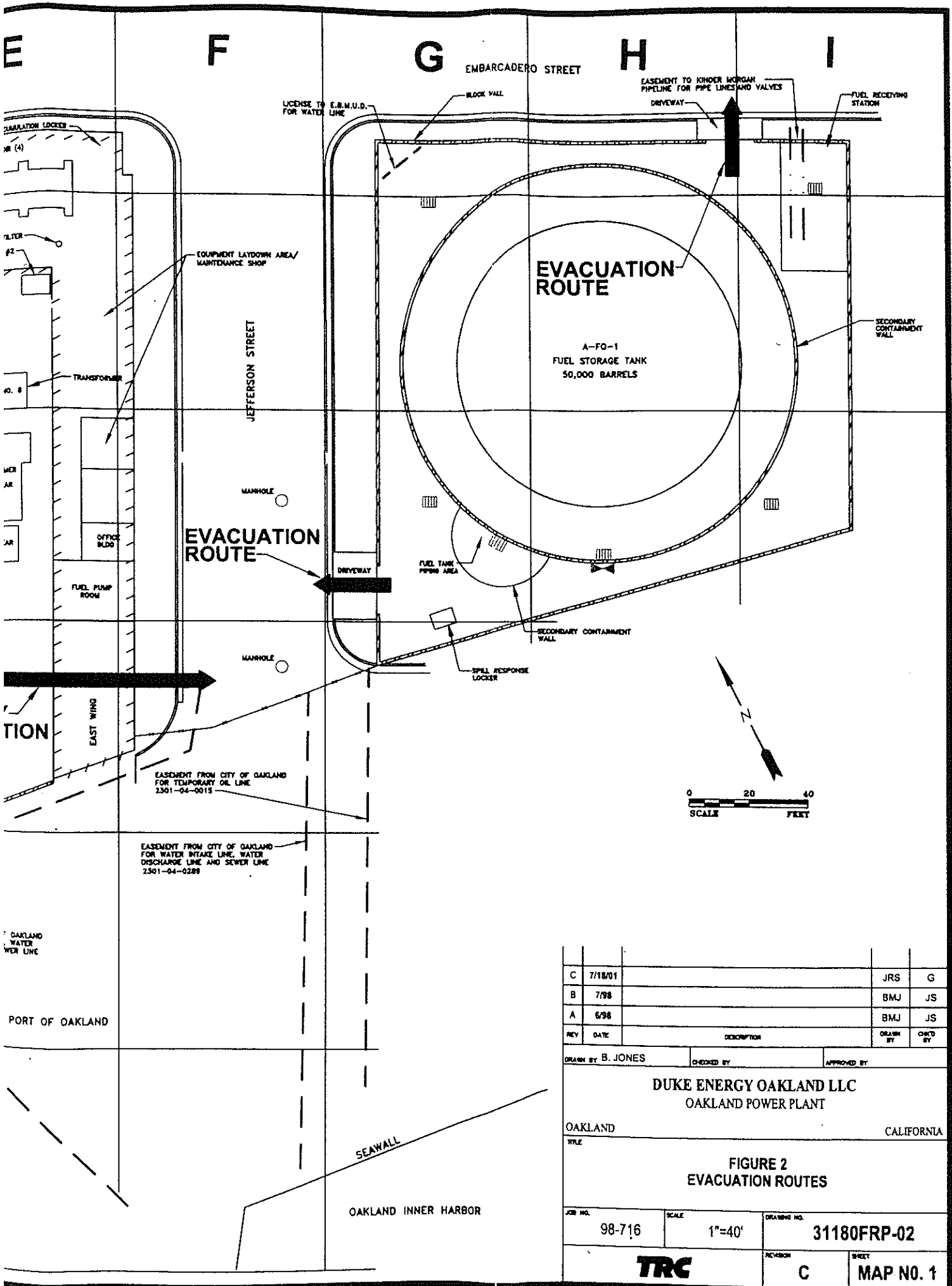




C	7/18/01		JRS	G
B	7/98		BMJ	JS
A	6/98		BMJ	JS
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
DRAWN BY B. JONES		CHECKED BY	APPROVED BY	
DUKE ENERGY OAKLAND LLC OAKLAND POWER PLANT				
OAKLAND			CALIFORNIA	
FIGURE 2 EVACUATION ROUTES				
JOB NO.	98-716	SCALE	1"=40'	DRAWING NO.
31180FRP-02				SHEET
TRC		REVISION		







C	7/18/01		JRS	G
B	7/98		BMJ	JS
A	6/98		BMJ	JS
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
DRAWN BY B. JONES		CHECKED BY	APPROVED BY	
DUKE ENERGY OAKLAND LLC				
OAKLAND POWER PLANT				
OAKLAND		CALIFORNIA		
TITLE				
FIGURE 2				
EVACUATION ROUTES				
JOB NO.		SCALE	DRAWING NO.	
98-716		1"=40'	31180FRP-02	
TRC			REVISION	SHEET
			C	MAP NO. 1

APPENDIX A
OIL SPILL REMOVAL ORGANIZATION CERTIFICATION

Printed: October 09, 1996 at 10:45:31

OSRO 0031 - Foss Environmental Services Co
Classification Summary SheetCOTP Zone: SAN FRANCISCOHigh Volume Port: YesClassifications are based on response times to CG MSO SAN FRANCISCO

Latitude : 37° 45' 55"

Longitude: 122° 15' 23"

If High Volume Port = Yes, classifications will be calculated using response times for High Volume Ports as outlined in the OSRO Classification Guidelines and 33 CFR 154 and 155.

Interim Classification

Environments	Facility Classification Levels					Vessel Classification Levels				
	A	B	C	D	E	A	B	C	D	E
River/Canal				X	X					
Inland				X	X		X	X	X	X
Ocean							X	X	X	X
Great Lakes										

X - an indicator that you have received a classification(s) for a specific environment

Classifications are not inclusive

- A = Average Most Probable Discharge (AMPD)
 B = Maximum Most Probable Discharge (MMPD)
 C = Worst Case Discharge Tier 1 (WCD Tier 1)
 D = Worst Case Discharge Tier 2 (WCD Tier 2)
 E = Worst Case Discharge Tier 3 (WCD Tier 3)

U.S. Department
of Transportation

United States
Coast Guard



Commanding Officer
National Strike Force
Coordination Center

1461 N. Road St. (US 17N)
Elizabeth City, NC 27909
Staff Symbol:
Phone: (252) 331-6000
FAX: (252) 331-6012

16471

98-031

JAN 19 1999

Foss Environmental Services
Attn: Stephanie Barton
1605 Ferry Point
Alameda, CA 94501

Dear Ms. Barton:

As per our phone conversation on January 15, 1999, changes to your Response Resource Inventory have been made and your OSRO classifications re-evaluated as outlined in the Coast Guard OSRO Classification Guidelines dated December 28, 1995. Your new classification reflects the additional owned resources not previously included. The following classification has been effected.

- Added Inland Facility "C" for the San Francisco COTP zone.

These changes will be reflected on the OSRO Classification Matrix available on the Internet at:

www.uscg.mil/hq/g-m/gmhome.htm

If you have any questions or would like more information regarding your classifications, please contact MSTC Franz Karnuth of my staff at (252) 331-6000, ext. 3015.

Sincerely,

A handwritten signature in black ink that reads "C. H. Burk".

C. H. BURK
OSRO Project Officer
By direction

U.S. Department
of Transportation

United States
Coast Guard



Commanding Officer
United States Coast Guard
National Strike Force
Coordination Center

1461 North Road St
Elizabeth City, NC 27909-3241
Staff Symbol:
Phone: (252) 331-6000
FAX: (252) 331-6012

16471
98-031
DEC 14 1998

Foss Environmental Services
Attn: Stephanie Barton
1605 Ferry Point
Alameda, CA 94501

Dear Ms. Barton:

As per your new Letter of Intent, changes to your Response Resource Inventory have been made and your OSRO classifications re-evaluated as outlined in the Coast Guard OSRO Classification Guidelines dated December 28, 1995. Your new classifications reflect the addition of the contractual resources from Trident 3M Services, Inc. The following classifications have been effected.

- Added Inland Facility "A" for the San Francisco COTP zone.
- Added Inland Facility "B" for the San Francisco COTP zone.
- Added Inland Vessel "A" for the San Francisco COTP zone.

These changes will be reflected on the OSRO Classification Matrix available on the Internet at:

www.uscg.mil/hq/g-m/gmhome.htm

If you have any questions or would like more information regarding your classifications, please contact SKC David Wuerker of my staff at (252) 331-6000, ext. 3029.

Sincerely,

CHRISTINE BURK
OSRO Project Officer

By direction of the Commanding Officer

Encl: (1) Letter of Intent with Trident 3M Services, Inc. dtd August 7, 1997

U.S. Department
of Transportation

United States
Coast Guard



Commanding Officer
National Strike Force
Coordination Center

1461 US Hwy 17 North
Elizabeth City, NC 27909
Staff Symbol: (ops)
Phone: (919) 331-6000

16471/1
96-031

OCT 11 1996

Ms. Stephanie Barton
Foss Environmental Services Company
660 West Ewing Street
Seattle, WA 98119-1587

Dear Ms. Barton:

Your application for classification as an Oil Spill Removal Organization (OSRO) has been reviewed and processed as outlined in the Coast Guard OSRO Classification Guidelines dated 28 December 1995.

Enclosures (1) and (2) to this letter provide a summary of your interim classifications by environment and COTP zone, and a summary of the resource totals for Temporary Storage Capacity (TSC), Effective Daily Recovery Capacity (EDRC) and boom used to determine these classifications. A copy of this letter with enclosures (1) and (2) should be provided to your current and potential clients. A complete listing of all of your resources can be downloaded from the RRI Bulletin Board System at (919) 331-6039/6042 or, if you prefer, we can mail a printout to you upon request.

You will be contacted in the near future to schedule a resource verification visit. Final classification will be issued following completion of resource verification. If you have any questions regarding your classification, please contact LTJG George Ganoung of my staff at (919) 331-6000, ext 3041.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. O. Kichner".
J. O. KICHNER
Commander, U. S. Coast Guard
Acting

Encl: (1) OSRO Classification Information
(2) Classifications by COTP Zone

Copy: COMDT (G-MOR)
Eleventh Coast Guard District (m)
Thirteenth Coast Guard District (m)
Seventeenth Coast Guard District (m)
MSO Los Angeles - Long Beach
MSO Portland, OR
MSO Puget Sound
MSO San Diego
MSO San Francisco
MSO Juneau

APPROVED OIL SPILL RESPONSE ORGANIZATION

FOSS ENVIRONMENTAL

RESPONSE SERVICES AND AREAS	Shoreline Clean-up	Oil Shore Waters Recovery & Storage	Nearshore Waters Recovery & Storage	Nearshore Waters Shoreline Protection	Inland Waters Recovery & Storage	Inland Waters Shoreline Protection	Rivers Recovery & Storage	Rivers Containment & Protection	Salvage & Firefighting	Bunkering & Lightering	Spill Management
ACP AREA 1 F/B **/**	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
ACP AREA 2 H/B **/**	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
ACP AREA 3 F/B **/**	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
ACP AREA 4 SB/B **/**	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
ACP AREA 5 H/F/B **/**	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
ACP AREA 6 F/B **/**	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

B=Balance of the Coast Areas, H=High Volume Port Area, F=Facility Transfer Areas, and SB=Santa Barbara Channel Planning Area

* Resident Response Systems are maintained in noted risk zones

** 50 bbl Immediate Containment Services

*** 2,500 bbl Containment & Recovery Services

Warning: The approval of an Oil Spill Response Organization (OSRO) does not predict operational performance or relieve an owner or operator from the requirement to consider response times and cargo volumes in the planning process. The use of an approved OSRO does not relieve an owner or operator of the statutory responsibility to effectively and promptly remove oil from the environment.



STATE OF CALIFORNIA - THE RESOURCES AGENCY

DEPARTMENT OF FISH AND GAME

1416 NINTH STREET
P. O. BOX 944200
SACRAMENTO, CA 94244-2090
Telephone (916) 445-9326

GRAY DAVIS, G.

October 21, 1999

Ms. Stephanie Barton
FOSS Environmental & Infrastructure
1605 Ferry Point
Alameda, California 94501

Dear Ms. Barton:

The approval of FOSS Environmental and Infrastructure is hereby renewed. Contingency plan preparers may continue to refer to your equipment, personnel and services to satisfy response planning requirements. Requirements in Section 819.02 of the pertinent chapter of the California Code of Regulations have been met. You are granted all approval levels when contracting with vessels and facilities within ACP Areas 1 through 6 based upon your application matrix attached.

This approval shall be for a period of five years. If you have any questions, you may contact me at the above letterhead address, or Mr. Chris Klumpp, of my staff, at telephone number (916) 322-1195 or by e-mail at cklumpp@ospr.dfg.ca.gov.

Sincerely,

Robert W. Floerke
Assistant Deputy Administrator
Office of Spill Prevention
and Response

Enclosure

cc: Mr. C. Klumpp

APPENDIX B

EVIDENCE OF CONTRACTS AND EQUIPMENT AVAILABLE
FROM EMERGENCY RESPONSE CONTRACTORS

FACILITY STANDBY SERVICES AGREEMENT
CONTRACT NO. 4306

THIS AGREEMENT entered into this 8th day of October, 2001 by and between FOSS ENVIRONMENTAL SERVICES COMPANY, a Washington corporation, whose principal place of business and mailing address is 200 SW Michigan Street, Suite 300, Seattle, Washington 98106 ("Foss") and Duke Energy Oakland Power Plant, LLC a Delaware corporation, whose principal place of business and mailing address is 50 Martin Luther King Drive, Oakland, CA.94607 ("Customer")

ARTICLE 1. SERVICES TO BE RENDERED

1.1 Program. Foss will provide a standby emergency response capability to respond to spills of petroleum (including crude oil and any of its fractions and non-petroleum oils as referenced in NVIC 8-92) in the water and on the shore from the property of Customer, located at Duke Energy Oakland Power Plant, 50 Martin Luther King Drive, Oakland, CA. 94607, in the manner and to the extent specified in Article 1.5. However, Customer is not obligated to deal exclusively with Foss and retains the right to deal with other organizations and/or individuals in order to provide emergency response to Customer, either in conjunction with Foss or in lieu thereof.

1.2 Response Resources.

1.2.1 Personnel and Equipment. In order to provide Customer with this emergency response capability, Foss will:

- (a) Maintain personnel on 24-hour call. These individuals will be current in spill control and cleanup technology and capable of administering the response to spills of petroleum required by this Agreement ("Personnel"). Personnel will be able to begin mobilization of response efforts within one hour of initiation of an emergency response as provided in Article 1.3;
- (b) Maintain equipment and vessels ("Equipment") in the locations listed in the attached Exhibit A. Equipment shall be available and able to be deployed to a spill site without delay, not counting normal maintenance and repairs and prior response initiations; and
- (c) Upon receipt of an initiation of emergency response ("Initiation") as provided in Article 1.3, promptly dispatch Personnel and Equipment to the scene of the

emergency, the size and scope of each to be determined by Customer.

1.3 Initiation of Emergency Response.

1.3.1 Initiation. Customer may initiate a response to any spill of petroleum by a direct call to Foss as per Exhibit C. The person initiating the request shall provide Foss with:

- (a) His or her name and title;
- (b) Customer's name;
- (c) The location of the emergency;
- (d) The common name of the petroleum involved in the emergency;
- (e) The approximate time of the emergency; and
- (f) Any other pertinent information relating to the emergency.

1.3.2 Agency Notification. Customer shall be solely responsible for reporting any spill to appropriate governmental authorities.

1.3.3 Mobilization Standby. Customer may limit its Initiation to a notice of "mobilization standby." If Customer so limits its Initiation, Foss will not dispatch equipment or personnel to the scene until Customer instructs Foss to respond to the emergency in the manner provided in Article 1.2.1(c). Upon receipt of such instruction, Foss will respond in the manner provided in Article 1.2.1(c). Upon Foss' arrival at the scene, Customer's representative will give Foss final authorization to proceed with the emergency response and the extent of such emergency response.

1.3.4 Confirmation. Customer shall promptly confirm all initiations of requests for emergency response, notices of mobilization standby, and final authorization to Foss in writing by filling out and signing notification form Exhibit D.

1.4 Priority. Foss will give Customer response priority equal to the priority given to other customers, to the extent of available Personnel and Equipment. Customer acknowledges that Foss may determine in its sole discretion which Initiation(s) Foss will respond to in the event that Foss at any time receives more Initiations than it can respond to with its available Personnel and Equipment. Customer further acknowledges that this Agreement does not obligate Foss to remove Personnel or Equipment from work initiated prior in time to Customer's Initiation if such Personnel and Equipment are in Foss' judgment necessary to complete the prior work. Recognizing that a Customer spill may occur while Foss Personnel and Equipment are committed to other work and that Foss has an obligation to continue a response action once begun, Foss will solicit a prioritization decision from the Federal On Scene Coordinator if so requested by Customer.

1.5 Scope of Emergency Response. Customer acknowledges that response activities provided by Foss under this Agreement are provided on an emergency basis; that the purpose of each response is to minimize to the extent practicable the environmental damage and health and safety risks resulting from petroleum; and that the petroleum involved may not be eliminated from the scene or other affected areas by the emergency response. FOSS DOES NOT WARRANT, BY THE TERMS OF THIS AGREEMENT OR BY UNDERTAKING AN EMERGENCY RESPONSE PURSUANT TO THIS AGREEMENT, THAT SUCH RESPONSE WILL RENDER THE SCENE, OR AREAS AFFECTED, SAFE FOR ANY FORM OF HUMAN ACTIVITY, OR IN COMPLIANCE WITH ANY STATE, LOCAL OR FEDERAL LAW.

1.6 Contingency Plans.

1.6.1 During the term of this Agreement only, including all renewal periods, Customer shall be entitled to name Foss in its state and federal contingency plans as being available to provide oil spill cleanup and containment services to Customer to the extent set forth in this Agreement.

1.6.2 Customer expressly acknowledges and agrees that Foss shall be entitled, without liability to Customer, to provide to any governmental agency at any time notice of the status of Customer's relationship with Foss. Without limiting the generality of the foregoing, Foss is and shall continue to be entitled, upon termination of this Agreement, to notify any governmental agency that this Agreement has been terminated and that Customer is not entitled to name Foss in its contingency plans.

1.7 Equipment and Personnel: It is understood and agreed that provisions of Equipment and Personnel by Foss under this Agreement are incidental to the performance of the services hereunder and are subject to Foss' continuing supervision, direction and control. All Personnel and Equipment utilized by Foss in performance of the services shall be paid for by Customer in accordance with Article 4. Foss shall provide, supervise, direct, control and pay for all Personnel provided hereunder, whether they are permanent or temporary personnel of Foss, are employees of third parties who are assigned to perform services for Foss on a contract basis, or employees of subcontractors of Foss. Foss shall not be responsible for, and shall not be required to supervise, direct or control any personnel provided by Customer or temporary personnel hired by Customer to perform emergency response services. Similarly, all Equipment utilized by Foss, whether owned, rented or under subcontract, including but not limited to all vessels, boom, and skimmers, shall be installed, operated, monitored, maintained, demobilized and decontaminated by Foss Personnel or the Personnel of Foss' subcontractors. Such Equipment, and the labor hours associated with installing, operating, monitoring, maintaining, demobilizing and decontaminating the Equipment, shall be paid for by Customer in accordance with Article 4.

1.8 Safety. Foss shall observe, and will require to the extent of its authority, its Personnel to observe applicable safety laws and regulations and applicable Customer Safety policies and procedures. However, Foss and Customer understand that (i) actions carried out in an emergency response in an

oil spill environment may be inherently dangerous and difficult, (ii) rules and requirements that may be appropriate and applicable under normal circumstances may not be appropriate or applicable in a particular emergency situation, as recognized by the considerable authority of Governmental or Regulatory Bodies to direct private actions in a response, and (iii) there are unresolved jurisdictional and applicability issues associated with emergency oil spill response that may make it difficult to determine the applicability of a particular requirement. Therefore, the provisions of this Article 1.8 will not be interpreted in a manner that would hold Foss to a standard that would be unreasonable under the actual conditions of particular spill event, and all Foss actions carried out consistently with the directions of the FOSC or SOSC or with approval of applicable safety officials will be deemed to be in compliance with this Article 1.8. While on a Customer's facilities or vessels, Foss shall comply with all instructions received by Foss from the Customer concerning safety policies and procedures, and will require, to the extent of its authority, its Personnel and employees of its subcontractors to comply with all specific instructions given by the Customer to such Personnel and subcontractors regarding safety and safety policies and procedures. The Customer shall give such instructions with as much advance notice as is practicable under the circumstances. Foss shall use its best efforts to maintain all required safety training, including HAZWOPER training, of Personnel, be they permanent or temporary employees of Foss, employees of Foss subcontractors or employees of third parties hired on a contract basis to work for Foss on the spill that may be necessary to perform response services or to provide Foss response Equipment.

ARTICLE 2. ADDITIONAL ENVIRONMENTAL SERVICES; TASK ORDERS.

Foss (either through its own organization or through subcontractors) may provide Customer with additional environmental services, including but not limited to marine firefighting, salvage, lightering, temporary tankage for recovered oil, transportation or disposal of petroleum, wildlife rescue and rehabilitation, remedial investigations, feasibility studies, training, groundwater services and remedial actions, not otherwise to be provided by Foss under this Agreement, pursuant to task orders signed by authorized representatives of Customer and Foss. Each task order will contain, among other provisions, a description of the services to be performed, a performance schedule and a cost estimate. Cost and scheduling information shall be estimates only and shall not be binding upon Foss. All task orders shall be subject to the terms and conditions set forth in this Agreement. In the event any provision contained in a task order conflicts with any term or condition in this Agreement, the provisions of this Agreement shall govern unless the task order specifically states that it is intended to amend this Agreement.

If Customer requires additional environmental services as a result of an emergency response by Foss pursuant to Article 1 of this Agreement, Customer may request such additional environmental services from Foss, but is not obligated to do so.

ARTICLE 3. TERM; TERMINATION.

3.1 Term. This Agreement will commence on the date it is executed by both Customer and Foss (the "Commencement Date") and will continue in effect

for a period of one year. This Agreement shall be automatically renewed for additional one year periods unless either party gives written notice to the other of termination by at least ninety (90) days prior to the end of any annual period.

3.2 Termination. Upon termination of this Agreement, Foss will prepare a final invoice for all services performed to the date of termination, and Customer will pay such invoice pursuant to the terms of Article 4 below. If such termination is at the request of Customer, Customer will reimburse Foss for any reasonable costs Foss incurs to effect the termination.

3.3 Survival of Terms. The termination of this Agreement shall not affect Customer's obligation to pay the charges and expenses payable under Article 4. The obligations of the parties under Article 6 shall survive termination of this Agreement.

ARTICLE 4. FEES AND CHARGES.

4.1 Service Charges. Customer will pay Foss the sum of one thousand dollars (\$1,000.00) in advance for the standby services. The standby service fee shall be subject to escalation after one (1) year, and annually thereafter. If the Consumer Price Index, All Urban Consumers "West Coast A" Average published by the U. S. Department of Labor ("CPI") discloses an increase over base, the base being the CPI the month immediately preceding the date of this Agreement, the standby services fee shall be increased by the same percentage as the CPI has increased over the base. Standby service fee shall also be subject to any other reasonable increases due to changes in operational or legislative requirements. In addition, Customer will pay for all other services provided under this Agreement, whether related to emergency responses or additional environmental services, and including but not limited to the provision of labor, material and equipment, in accordance with each Foss schedule of rates, attached as Exhibit B. Foss reserves the right to change its rates at any time; provided, however, that no such rate change will take effect, with respect to services provided to Customer, until thirty (30) days after Foss' written notice of the rate change to Customer.

4.2 Expenses. Customer will pay Foss for all expenses incurred by Foss in connection with Foss' provision of services ordered by Customer, including but not limited to expenses for travel (including local travel), meals and lodging, reproductions, deliveries, equipment rental, freight and subcontractor charges. All such expenses will be billed to Customer in accordance with the attached Exhibit B.

4.3 Governmental Requirements. Customer acknowledges that emergency responses and other services that may be provided by Foss under this Agreement are governed and regulated by certain state, federal and local laws and the regulations and other requirements of various government agencies with jurisdiction over emergency events and other environmental matters (collectively referred to as "governmental requirements"). To the extent that any governmental requirement increases the scope of the services to be rendered and the expenses associated with such services, Customer will pay Foss for all such services and expenses as provided in this Article.

9.2 Assignment. This Agreement shall not be assigned by either Foss or Customer without the written consent of the other party; provided, however, that Foss may without Customer's consent enter into any subcontract(s) for the performance of its obligations under this Agreement as Foss deems necessary or desirable.

9.3 Modification. This Agreement may not be modified except by an agreement in writing signed by both Foss and Customer.

9.4 Compliance with Law.

9.4.1 Foss. In its provision of services under this Agreement, Foss will comply with all applicable laws in effect at the time that such services are performed and will comply with the Fair Labor Standards Act, as amended, and all valid rules and regulations of federal and state agencies regarding nondiscrimination in employment practices, to the extent that such rules and regulations apply to employment at the locations covered by this Agreement.

9.4.2 Customer. Customer will, at its sole cost and expense, comply with all laws relevant to the subject matter of this Agreement, including all applicable to petroleum and hazardous substances.

9.5 Permits, Access and Cooperation. Customer will, at its sole cost and expense, obtain and maintain all governmental permits and approvals (to the extent that such permits and approvals can be obtained solely by Customer), and any permission to enter onto the property of any third parties, as may be required in connection with the performance of this Agreement, and will otherwise fully cooperate with Foss in the performance of this Agreement.

9.6 Force Majeure. Neither Customer nor Foss shall be considered in default in the performance of its obligations under this Agreement, except obligations to make payments pursuant to Article 4, to the extent that the performance of any such obligation is prevented or delayed by acts of God, a public enemy, restraint of the government (including governmental requirements as described in Article 4.3), strikes or any causes of any nature that could not with reasonable diligence be controlled or prevented by the party whose performance is prevented or delayed. In the event that any governmental requirement, as defined in Article 4.3, or any force majeure event described in this Article delays or increases the time required for Foss' performance under this Agreement, the time for such performance will be extended for as long as is reasonably required by Foss to meet such governmental requirement or for as long as is reasonably necessary in light of such force majeure event. In the event that the cost of Foss' performance of this Agreement is increased by any force majeure event described in this Article, Customer will pay all increased costs reasonably resulting from such force majeure event.

9.7 Exhibits. The Exhibits attached hereto are by this reference incorporated into this Agreement.

4.4 Invoicing and Records. Foss will invoice Customer monthly for standby services. Emergency response services will be invoiced as incurred for all current charges and expenses. Foss will maintain accurate records of all labor, materials and equipment and other items provided to Customer under this Agreement, and verifying expenses incurred by Foss in connection with its provision of response services to Customer. Foss will make such records available to Customer during business hours at Foss' main office in Seattle, Washington, or by mail if Customer so requests, for one year after conclusion of the emergency response, or the provision of additional environmental services to which such records relate.

4.5 Payment. Customer shall pay the full amount of all invoiced charges and expenses to Foss within thirty (30) days after date of invoice. Late payments shall be subject to a one time flat late fee of \$50 and shall earn interest at the rate of 1.5 % per month, or the maximum rate permitted by law, from the due date until paid. If Customer fails to make any payment when due, Foss may assess a late charge of one and one half percent (1.5%) per month (or the maximum rate permitted by law, whichever is less) on the unpaid balance until paid. In addition to interest and the late fee, Customer shall also be responsible for all costs incurred by Foss to collect overdue amounts, including collection fees, filing fees, court costs and attorney fees. Foss reserves all legal rights and recourses against the Customer and its property for failure to pay such invoices when due.

ARTICLE 5. HANDLING AND TRANSPORTATION OF PETROLEUM.

5.1 RCRA Compliance.

5.1.1 Nothing contained within this Agreement shall be construed or interpreted as requiring Foss to assume the status of a generator, or of an owner or operator of a treatment, storage and disposal ("TSD") facility as those terms appear within the Resource Conservation Recovery Act, 42 U.S.C. § 6901, et. seq. (hereinafter "RCRA") or within any federal or state statute governing the transportation, treatment, storage or disposal of (1) hazardous waste, (2) hazardous substances, or (3) petroleum, petroleum products, or real property, including adjoining beaches, personal property and materials contaminated with or otherwise affected by petroleum (hereinafter referred to collectively as "Oil Spill Waste").

5.1.2 Customer shall assume the responsibility for compliance with the provisions of RCRA and any federal or state statute governing the transportation, treatment, storage and disposal of hazardous waste, hazardous substances and Oil Spill Waste.

5.1.3 In the event Customer requires Foss' assistance in meeting its obligations, as set forth within this Paragraph, then Foss, as requested and directed by Customer, and at Customer's expense, will provide the following:

(a) enter into subcontracts for analytical testing to assist Customer in the proper characterization of the waste for documentation purposes; and

(b) prepare manifests for Customer's approval and execution.

5.2 Selection of Facility; Transport. If performance of this Agreement requires the treatment, storage or disposal of any hazardous waste, hazardous substance or Oil Spill Waste, Foss will transport the hazardous waste, hazardous substance or Oil Spill Waste, or cause it to be transported, only to a disposal or treatment facility selected by Customer. Any transportation undertaken or arranged by Foss under this Agreement is undertaken or arranged by Foss solely as Customer's agent and under Customer's direction.

5.3 Generator Numbers. If any Oil Spill Waste is designated by any governmental authority as a hazardous waste (or any similar designation) then, as a condition precedent to Foss' performance under this Agreement with respect to such substance, Customer shall provide Foss with Customer's EPA identification number and any other identification or authorization required by law or assigned to Customer by any governmental authority for such substances.

5.4 Title and Possession. Nothing contained within this Agreement shall be construed or interpreted as requiring Foss to take title to or otherwise own any Oil Spill Waste, hazardous waste or hazardous substance. Customer acknowledges that Foss has not taken and will not take title to or otherwise own such Oil Spill Waste, hazardous waste or hazardous substance, and that Foss is not, has not been and will not be in possession or control of any such Oil Spill Waste, hazardous waste or hazardous substance, except as Customer's agent.

ARTICLE 6. LIMITS OF LIABILITY.

6.1 Limits of Liability.

6.1.1 Consequential Damages. Neither party shall be liable in connection with this Agreement or the services provided under this Agreement for lost profits or any other consequential, special or incidental damages arising out of any cause whatsoever, including negligence, gross negligence and willful misconduct of the party being released.

6.1.2 Hazardous Substances. Foss shall not be liable to Customer (or any person claiming through Customer) in any amount for any personal injury, illness, death or property damage caused in whole or in part by petroleum or a hazardous substance or any other substance regulated by law, handled by Foss in the performance of this Agreement, except to the extent caused by the gross negligence or willful misconduct of Foss.

ARTICLE 7. CHANGES IN LAWS.

The parties understand and agree that the terms and conditions of this Agreement (including, but not limited to, fees and charges) are based on existing laws and regulations of federal, state and local governments affecting the services contemplated hereunder. If these existing laws and regulations are modified, if new laws or regulations are enacted, or if the services to be provided hereunder are modified, the terms and conditions of this Agreement (including, but not limited to, fees and charges) shall be modified to reflect such changes.

ARTICLE 8. INDEMNIFICATION.

8.1 Foss agrees to indemnify, defend and hold harmless the Customer from and against any and all costs, liabilities, claims, demands and causes of action which the Customer may suffer, incur, or pay out to the extent caused by the gross negligence or willful misconduct of Foss, its affiliates, officers, directors, employees or subcontractors except to the extent that such liabilities, claims, demands and causes of action occur as a result of the Customer's failure to observe or comply with any applicable law, regulation or lawful authority, or its failure to observe or comply with and fulfill its obligations under this Agreement or as a result of the grossly negligent or wrongful acts of the Customer, its employees or agents, or of third parties.

8.2.1 Customer shall indemnify, defend and hold harmless Foss, its affiliates, directors, officers, employees, agents and subcontractors from and against any and all costs, liabilities, claims, demands, and causes of action to the extent caused by the Customer's failure to observe or comply with any applicable law, regulation or lawful authority, or its failure to observe or comply with and fulfill its obligations under this Agreement or as a result of the gross negligence or willful misconduct of the Customer, its employees or agents, except to the extent that such liabilities, claims, demands or causes of action occur as a result of the gross negligence or willful misconduct of Foss, its affiliates, officers, directors, employees or subcontractors.

8.2.2 Notwithstanding Article 8.2.1, Customer shall indemnify, defend and hold harmless Foss, its affiliates, directors, officers, employees, agents and subcontractors from and against any and all costs, liabilities, claims, demands, and causes of action for removal costs and damages under OPA §1002, 33 U.S.C. 1321 (c)(4)(A) or corresponding State Law which result from actions taken or omitted to be taken in the course of rendering care, assistance or advice in connection with a discharge or threatened discharge from a facility consistent with the National Contingency Plan or as otherwise directed by the Customer, the US Coast Guard or other governmental authorities, which Foss, its affiliates, directors, officers, employees, agents and subcontractors, individually or collectively, may suffer, incur, or pay out, except to the extent that:

(a) Foss, its affiliates, officers, directors, employees or subcontractors is entitled to immunity from liability under Responder Immunity Law;

(b) such liabilities, claims, demands and causes of action arise out of the gross negligence or willful misconduct of Foss, its affiliates, officers, director, employees or subcontractors;

ARTICLE 9. MISCELLANEOUS.

9.1 Relation of Parties. Notwithstanding any other provision of this Agreement, including but not limited to Article 1, Foss is not Customer's employee and shall be considered an independent contractor for all purposes of this Agreement and otherwise. Foss will not be deemed liable for Customer's selection of any parties contracted by Customer for any purpose or for the acts or omissions of such parties.

9.8 Notices. All notices required under this Agreement shall be given in writing to Foss and Customer at the addresses set forth in the preamble. All such notices shall be personally delivered or sent by first-class mail, postage prepaid. Notices shall be deemed given when received and shall be deemed received when personally delivered or, if sent by mail, forty-eight (48) hours after they are postmarked.

9.9 Entire Agreement. This instrument constitutes the entire agreement between the parties with respect to the intended response service. Neither party is relying or may rely on any written or oral collateral, prior or contemporaneous agreement, assurance, representation or warranty not set forth in this instrument. No modification of this instrument shall be implied in law, equity or admiralty, nor shall any express modification be effective unless in writing signed by the party to be charged.

9.10 Captions. Captions used in this Agreement are for convenience of reference only and shall have no force or effect or legal meaning in the construction or enforcement of this Agreement.

9.11 Benefit. This Agreement shall be for the benefit of and be binding upon both parties, their successors and permitted assigns.

9.12 Applicability. All limitations of and exemptions from liability and entitlement to indemnity, applicable to Foss by law or the terms of this Agreement, shall apply to Foss, Saltchuk Resources, Inc., their parent, affiliated and/or subsidiary companies, and their officers, directors, employees and agents, and to any vessel owned or chartered by any of the above, and the master and crew of any such vessel.

9.13 Severability. If in any judicial proceeding a court shall refuse to enforce all the provisions of this Agreement, the scope of any unenforceable provision shall be deemed modified and diminished to the extent necessary to render such provision valid and enforceable. In any event, the validity or enforceability of any such provision shall not affect any other provision of this Agreement, and this Agreement shall be construed and enforced as if such provision had not been included.

9.14 Governing Law. This Agreement shall be governed and construed under the laws of the State of Washington. Any suit, action or proceeding brought by either party in consequence of or to enforce any term or provision of this Agreement shall be commenced in the United States District Court for the Western District of Washington at Seattle, Washington. In the event that the said United States District Court actually determines that it lacks jurisdiction, then any suit, action or proceeding brought by either party shall be commenced in the King County Superior Court of the State of Washington. Customer submits to the jurisdiction of the courts of the State of Washington and the United States District Court for the Western District of Washington and consents to service of process by certified mail, return receipt requested, addressed in accordance with Article 9.8 above. The prevailing party in any such suit, action or proceeding shall be entitled to recover its costs of suit and reasonable attorneys' fees.

9.15 Waiver. Any waiver with respect to the provisions of this Agreement shall not be effective unless in writing and signed by the party against whom it is asserted. No such waiver shall constitute a waiver of any subsequent breach or default.

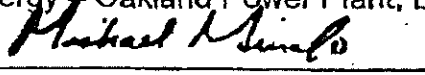
IN WITNESS WHEREOF, the parties have signed into this Agreement as of the date first above written.

FOSS ENVIRONMENTAL SERVICES COMPANY


By: Stephanie Barton

Its: Director, Emergency Response Programs

Duke Energy - Oakland Power Plant, LLC.


By: Michael Minafo

Its: Purchasing Agent

Facility 4/09

Foss Environmental Main Offices

Long Beach Office
Pier D, Berth D47
Long Beach, CA 90802
562-432-1304
562-432-1826 Fax

San Diego Office
5525 Gaines St.
San Diego, CA 92110
858-346-2900
858-346-2924 Fax

Alameda Office
1605 Ferry Point
Alameda, CA 94501
510-749-1390
510-749-1391 Fax

Seattle Office
200 SW Michigan, Ste. 300
Seattle, WA 98106
206-767-0441
206-768-1470 Fax

Portland Office
5420 N. Lagoon Dr.
Portland, OR 97217
503-283-1150
503-289-6568 Fax

Foss Environmental Satellite Offices

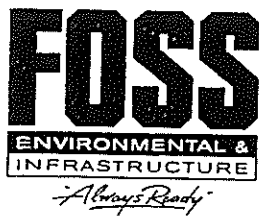
Bakersfield Office
1620 E. Brundage Lane
Bakersfield, CA 93307
661-322-8174

Oxnard Office
750 W. Hueneme Rd.
Oxnard, CA 93303
805-986-6098

Eureka Office
1090 W. Waterfront
Eureka, CA 95501
707-441-0723

Roseburg Office
2270 Aviation Drive B
Roseburg, OR 97470
541-957-1000

EXHIBIT A
EQUIPMENT



FOSS ENVIRONMENTAL RESOURCES

PORTLAND COTP ZONE

SKIMMERS & VACUUM TRUCKS

Description	Make/Model	ID No.	Date	Location	Storage	BPD	Eff.	EDRC	Environ.	Maintenance
Belt Skimmer Vessel	Marco/I-I	6021	1981	Astoria - E Basin	Moorage	4971	74%	3679	Inland	Monthly
Belt Skimmer Vessel	Marco/IC	6011	1979	Portland - FES	Trailer	4971	74%	3679	Inland	Monthly
Brush Skimmer	Lamor/OPC2	6158	1991	Aberdeen - Port	20' Cont.	15096	95%	14341	Ocean	Quarterly
Brush/Wier Skimmer	Aqua-Guard/RBS-10	6294	1996	Astoria- McCall	Container	3600	95%	3420	Ocean	Use/Quarterly
Brush/Wier Skimmer	Aqua-Guard/RBS-10	6334	1996	Portland- FES	Loft	3600	95%	3420	Ocean	Use/Quarterly
Disc Skimmer	Vikoma/12K	6226	1991	Portland - FES	Shelf	2400	95%	2280	Inland	Use/Quarterly
Disc Skimmer	Vikoma/12K	6225	1991	Portland - FES	Shelf	2400	95%	2280	Inland	Use/Quarterly
Rope Mop	OMI-MK I-4E	6222	1985	Portland - FES	Shelf	240	20%	48	Inland	Use/Quarterly
Rope Mop	CSI-Model II-A3	6143	1980	Portland - FES	Shelf	1440	20%	288	Inland	Use/Quarterly
Rope Mop	OMI-MK II-4VE	6142	1985	Portland - FES	Shelf	480	20%	96	Inland	Use/Quarterly
Rope Mop	OMI-MK I-4E	6144	1985	Portland - FES	Shelf	240	20%	48	Inland	Use/Quarterly
Rope Mop	Abasco-14G	6221	1978	Astoria - Pier 1	32' Cont.	240	20%	48	Inland	Use/Quarterly
Vacuum Skimmer	Vac-U-Max	4090	1991	Portland - FES	Shelf	2055	20%	411	Inland	Use/Quarterly
Vacuum Skimmer	Vac-U-Max	4091	1991	Portland - FES	Shelf	2055	20%	411	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Portland - WCM	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Portland - WCM	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 70 bbl	N/A	N/A	Portland - WCM	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 70 bbl	N/A	N/A	Portland - WCM	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 70 bbl	N/A	N/A	Portland - WCM	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 70 bbl	N/A	N/A	Portland - WCM	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 70 bbl	N/A	N/A	Portland - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 70 bbl	N/A	N/A	Portland - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 70 bbl	N/A	N/A	Portland - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 55 bbl	N/A	N/A	Portland - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 55 bbl	N/A	N/A	Portland - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 55 bbl	N/A	N/A	Portland - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 35 bbl	N/A	N/A	Portland - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Various, 35 bbl	N/A	N/A	Portland - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Petro-Steel, 70 bbl	2046	1992	Portland - FES	Vehicle	3430	20%	686	Inland	Use/Quarterly
Vacuum Truck	Presvac, 120 bbl	3135	2000	Portland - FES	Vehicle	3430	20%	686	Inland	Use/Quarterly
Wier Skimmer	Douglas/Skim-pak	6327	N/A	Portland - FES	Shelf	888	81%	719	Inland	Use/Quarterly
Wier Skimmer	Douglas/Skim-pak	6328	N/A	Portland - FES	Shelf	888	81%	719	Inland	Use/Quarterly
Wier Skimmer	Douglas/Skim-pak	6329	N/A	Portland - FES	Shelf	888	81%	719	Inland	Use/Quarterly
Wier Skimmer	Douglas/Skim-pak	6330	N/A	Portland - FES	Shelf	888	81%	719	Inland	Use/Quarterly
Wier Skimmer	Douglas/Skim-pak	6331	N/A	Portland - FES	Shelf	888	81%	719	Inland	Use/Quarterly

Total Efficiency Derated Recovery Capacity (EDRC)

44,219 barrels/day

FES = Foss Environmental; FMC = Foss Maritime; SPR = Spencer Environmental; WCM = West Coast Marine



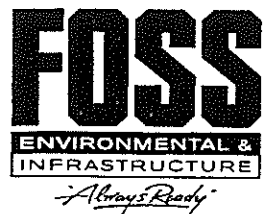
FOSS ENVIRONMENTAL RESOURCES

PORTLAND COTP ZONE

DECONTAMINATION & SALVAGE

Description	Make	ID No.	Date	Location	Storage	Qty.	Capacity	Maintenance
Pressure Washer, hot, 2,000 psi	American	5040	N/A	Portland - FES	Warehouse	1	2000 psi	25 hours
Pressure Washer, hot, 3,000 psi	Landa	5031	N/A	Portland - FES	Warehouse	1	3000 psi	25 hours
Pump, air diaphragm, 1"	Wilden	4072	N/A	Portland - FES	Warehouse	1	35 gpm	Each Use
Pump, air diaphragm, 1"	Wilden	122-A	N/A	Portland - FES	Warehouse	1	35 gpm	Each Use
Pump, air diaphragm, 2"	Wilden	4106	N/A	Portland - FES	Warehouse	1	155 gpm	Each Use
Pump, air diaphragm, 2"	Wilden	4107	N/A	Portland - FES	Warehouse	1	155 gpm	Each Use
Pump, air diaphragm, 2"	Wilden	4108	N/A	Portland - FES	Warehouse	1	155 gpm	Each Use
Pump, air diaphragm, 2"	Wilden	4070	N/A	Portland - FES	Warehouse	1	155 gpm	Each Use
Pump, air diaphragm, 2"	Wilden	4104	N/A	Portland - FES	Warehouse	1	155 gpm	Each Use
Pump, air diaphragm, 3"	Wilden	4071	N/A	Portland - FES	Warehouse	1	230 gpm	Each Use
Pump, submersible, 1-1/2", 110V	Flygt	4069	N/A	Portland - FES	Warehouse	1	120 gpm	Each Use
Pump, trash, 2", diesel	Multiquip	4065	N/A	Portland - FES	Warehouse	1	192 gpm	Each Use
Pump, trash, 2", gas	Homelite	4045	N/A	Portland - FES	Warehouse	1	192 gpm	Each Use
Pump, trash, 2", gas	Homelite	4136	N/A	Portland - FES	Response Van	1	192 gpm	Each Use
Pump, trash, 3", gas	Homelite	4118	N/A	Portland - FES	Warehouse	1	385 gpm	Each Use
Pump, trash, 3", gas	Homelite	4012	N/A	Portland - FES	Warehouse	1	385 gpm	Each Use
Pump, trash, 3", gas	Homelite	4117	N/A	Portland - FES	Warehouse	1	385 gpm	Each Use
Pump, trash, 3", gas	Homelite	4068	N/A	Portland - FES	Warehouse	1	385 gpm	Each Use
Various hand tools and supplies	Various	N/A	N/A	Portland - FES	Warehouse	Misc.	N/A	Various

FES = Foss Environmental Services Company; FMC = Foss Maritime Company



FOSS ENVIRONMENTAL RESOURCES

PORTLAND COTP ZONE

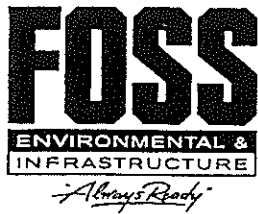
STORAGE & OFFLOADING

Description	Make	ID No.	Date	Location	Storage	Qty.	Each (bbl)	Total (bbl)	Eff.	Derated	Maint.
Barge Tankage	BMC-3	D273667	1947	Portland - FMC	Moorage	1	19,000	19,000	50%	9,500	Per ABS
Barge Tankage	BMC-4	D523863	1943	Portland - FMC	Moorage	1	5,580	5,580	50%	2,790	Per ABS
Barge Tankage	BMC-7	CG020784	1974	Portland - FMC	Moorage	1	10,000	10,000	50%	5,000	Per ABS
Barge Tankage	Foss 185-P1*	D613867	1979	Portland - FMC	Moorage	1	11,900	11,900	50%	5,950	Per ABS
Drum, open top	17C	N/A	N/A	Portland - FES	Whse.	20	0	5	100%	5	N/A
Drum, open top	17C	N/A	N/A	Portland - FES	Whse.	15	0	7	100%	7	N/A
Drum, open top	17H	N/A	N/A	Portland - FES	Whse.	15	1	11	100%	11	N/A
Drum, open top	17H	N/A	N/A	Portland - FES	Whse.	30	1	39	100%	39	N/A
Drum, open top	17C	N/A	N/A	Portland - FES	Whse.	10	1	13	100%	13	N/A
Drum, open top	Overpack	N/A	N/A	Portland - FES	Whse.	15	2	30	100%	30	N/A
Drum, tight head	17E	N/A	N/A	Portland - FES	Whse.	5	0	2	100%	2	N/A
Drum, tight head	17E	N/A	N/A	Portland - FES	Whse.	5	1	4	100%	4	N/A
Drum, tight head	17E	N/A	N/A	Portland - FES	Whse.	10	1	13	100%	13	N/A
Facility Tankage	Panoco	N/A	Var.	Portland	Fixed Tank	1	476	476	50%	238	Vendor
Pillow Tank	Canflex/DLE-4	N/A	1991	Aberdeen	20' Cont.	3	24	71	100%	71	Use/Quart.
Pillow Tank	Canflex/DLE-4	N/A	1991	Portland - FES	Shelf	4	24	95	100%	95	Use/Quart.
Pillow Tank	Canflex/DLE-4	N/A	1991	Rainier	32' Marco	2	24	48	100%	48	Use/Quart.
Portable Tank	Baker	N/A	Var.	Portland	Trailer	40	Various	16,548	50%	8,274	Vendor
Portable Tank	Rain for Rent	N/A	Var.	Portland	Trailer	14	Various	3,605	50%	1,802	Vendor
Portable Tank	Frac Tank	N/A	Var.	Portland	Trailer	55	Various	19,009	50%	9,505	Vendor
Vacuum Trailer	Various	N/A	Var.	Portland - WMC	Trailer	2	120	240	50%	120	Use/Quart.
Vacuum Truck	Various	N/A	Var.	Portland - WMC	Vehicle	4	70	280	50%	140	Use/Quart.
Vacuum Truck	Petro Steel	2046	1992	Portland - FES	Vehicle	1	70	70	100%	70	Use/Quart.
Vacuum Truck	Presvac	3135	2000	Portland - FES	Vehicle	1	120	120	100%	120	Use/Quart.

Total Derated Storage Capacity

43,728 barrels

* Ocean Certified



FOSS ENVIRONMENTAL RESOURCES

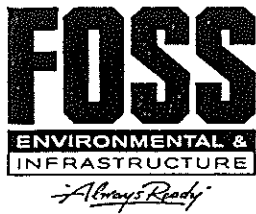
PUGET SOUND COTP ZONE

TRANSPORTATION & COMMUNICATIONS

Description	Make/Model	I.D. No.	Date	Location	Storage	Qty.	Maintenance
Crane Truck, diesel, 10 ton	International	2002	1991	Seattle - FES	Vehicle	1	Quarterly
Tractor, diesel, vac pump, 80,000 gross	Freightliner	2011	1992	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, 1 ton	Ford F250	1063	1997	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, 1 ton	Ford F250	1062	1997	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, 1 ton	Ford F250	1056	1997	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, 1 ton	Ford F250	1053	1997	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, 1 ton	Ford F250	1058	1997	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, crew cab, 1 ton	Ford F350	1007	1989	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, 1 ton, 4x4	Ford F350	1098	1999	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, crew cab, 1 ton, 4x4	Ford F350	1083	1999	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, crew cab, 1 ton, 4x4	Ford F350	1043	1992	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, crew cab, flatbed, 1 ton	Ford F350	1079	1999	Seattle - FES	Vehicle	1	Quarterly
Truck, diesel, flatbed, 48,000 gross	Kenworth	N/A	1993	Seattle - FMC	Vehicle	1	Quarterly
Truck, diesel, liftgate, 1 ton	Ford F250	1077	1997	Seattle - FES	Vehicle	1	Quarterly
Truck, gas, crew cab, 3/4 ton	Ford F250	1011	1990	Seattle - FES	Vehicle	1	Quarterly
Truck, gas, crew cab, 3/4 ton	Ford F250	1012	1990	Seattle - FES	Vehicle	1	Quarterly
Van, gas, box, 1 ton	Chevy	1049	1989	Seattle - FES	Vehicle	1	Quarterly
Van, gas, box, maintenance, 1 ton	Ford F350	1046	1984	Seattle - FES	Vehicle	1	Quarterly
Van, gas, response, 1 ton, VHF/UHF	Ford F350	1047	1985	Seattle - FES	Vehicle	1	Quarterly
Van, gas, response, 1 ton, VHF/UHF	Ford F350	1045	1987	Seattle - FES	Vehicle	1	Quarterly
Van, gas, support, 1 ton, VHF	Chevy Astro	1048	1993	Seattle - FES	Vehicle	1	Quarterly

Base station	Motorola	Various	1988	Seattle - FES	Office	1	As Needed
Radio, Nextel	Motorola	Various	1997	Seattle - FES	Office	50	As Needed
Radio, VHF	Yeasu	Various	Various	Seattle - FES	Office	10	As Needed
Personnel Computer, field portable	Various	Various	Various	Seattle - FES	Office	8	As Needed
Cellular Phone	Various	Various	Various	Seattle - FES	Office	10	As Needed

FES = Foss Environmental Services Company; FMC = Foss Maritime Company



FOSS ENVIRONMENTAL RESOURCES

PUGET SOUND COTP ZONE

CONTAINMENT BOOM & VESSELS

Description	Make	I.D. No.	Date	Location	Storage	Size (in)	Qty.	Enviorn.	Maintenance
Contractor Boom	Kepner	6053	1991	Anacortes - Cap S	32' FRV	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Kepner	2187	1991	Anacortes - Pier 1	20' Container	8 x 12	1,000	Inland	Use/Yearly
Expandable Boom	Versatek	N/A	1991	Bellingham	Wood Box	12 x 18	1,000	Inland	Use/Yearly
Expandable Boom	Versatek	N/A	1991	Bellingham	Metal Box	12 x 18	1,000	Inland	Use/Yearly
Contractor Boom	Kepner	3067	1991	Bellingham	20' Container	8 x 12	3,000	Inland	Use/Yearly
Contractor Boom	Kepner	6039	1991	Bellingham - Port	32' FRV	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Kepner	6055	1991	Everett - FMC	32' FRV	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Am. Marine	N/A	1994	Matson Term	20' Cont	8 x 12	600	Inland	Use/Yearly
Contractor Boom	Kepner	3008	1995	Neah Bay - Tribal	45' Trailer	8 x 12	2,400	Inland	Use/Yearly
Contractor Boom	Kepner	2210	1991	Olympia - Port Dc	20' Container	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Kepner	6045	1991	PA - Boat Haven	32' FRV	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Kepner	3096	1991	Port Angeles - FM	20' Container	8 x 12	2,000	Inland	Use/Yearly
Contractor Boom	Various	N/A	Var.	Port Angeles - FM	Storage Shed	8 x 12	400	Inland	Use/Yearly
Expandable Boom	Versatek	3096	1991	Port Angeles - PA	20' Container	12 x 18	3,000	Inland	Use/Yearly
Contractor Boom	Kepner	873	1991	Port Townsend - S	20' Container	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Am. Marine	N/A	1993	Puget Sound	FMC Barges	8 x 12	5,700	Inland	Use/Yearly
Contractor Boom	Kepner	3073	1991	Seattle - FES	20' Cont. Chas.	8 x 12	3,000	Inland	Use/Yearly
Contractor Boom	Petro Barrier	2629	1987	Seattle - FES	20' Skid	24	900	Inland	Use/Yearly
Contractor Boom	Kepner	3070	1989	Seattle - FES	20' Container	18 x 24	1000	Ocean	Use/Yearly
Contractor Boom	Kepner	3063	1991	Seattle - FES	18' Trailer	8 x 12	1000	Inland	Use/Yearly
Contractor Boom	Kepner	0239	1990	Seattle - FES	100' Bundles	8 x 12	1000	Inland	Use/Yearly
Contractor Boom	Am. Marine	6034	1994	Seattle - FMC	23' SRV	6 x 11	1000	Inland	Use/Yearly
Contractor Boom	Kepner	6047	1991	Seattle - Pier 91	32' FRV	8 x 12	1000	Inland	Use/Yearly
Expandable Boom	Versatek	6042	1991	Seiku - Olson's	32' FRV	12 x 18	1100	Inland	Use/Yearly
Contractor Boom	Kepner	6051	1991	Tacoma - FMC	32' FRV	8 x 12	1000	Inland	Use/Yearly
Contractor Boom	Kepner	3080	1991	Tacoma - TOTE	20' Container	8 x 12	3000	Inland	Use/Yearly

Total Containment Boom

40,100

Description	Make	I.D. No.	Date	Location	Storage	Size (ft)	Qty.	Spd. (kts)	Maintenance
Response Vessel	Kvichak	6053	1991	Anacortes - Cap S	Moorage	32 x 11.5	1	30	Use/Monthly
Response Vessel	Kvichak	6039	1991	Bellingham - Port	Moorage	32 x 11.5	1	30	Use/Monthly
Response Vessel	Kvichak	6055	1991	Everett - FMC	Moorage	32 x 11.5	1	30	Use/Monthly
Response Vessel	Kvichak	6045	1991	PA - Boat Haven	Moorage	32 x 11.5	1	30	Use/Monthly
Response Vessel	Kvichak	6047	1991	Seattle - Pier 91	Moorage	32 x 11.5	1	30	Use/Monthly
Response Vessel	Kvichak	6042	1991	Seiku - Olson's	Moorage	32 x 11.5	1	30	Use/Monthly
Response Vessel	Kvichak	6051	1991	Tacoma - FMC	Moorage	32 x 11.5	1	30	Use/Monthly
Skiff w/ outboard	Various	Various	Various	Seattle - FES	Various	12 x 4	8	10	Quarterly
Response Vessel	Munson	6034	1993	Seattle - FMC	Moorage	23 x 8	1	30	Use/Monthly
Tugs	Various	Various	Various	Puget Sound	Moorage	Various	39	Various	Per ABS
Workboat	Robolo	6204	1974	Seattle - FES	Trailer	18 x 6	1	25	Use/Monthly
Workboat	Whaler	6014	1984	Seattle - FES	Trailer	17 x 6	1	25	Use/Monthly
Workboat	All Alaskan	6214	1985	Seattle - FES	Trailer	16 x 5	1	20	Use/Monthly

Total Boats

58

FES = Foss Environmental Services Company; FMC = Foss Maritime Company



FOSS ENVIRONMENTAL RESOURCES

PUGET SOUND COTP ZONE

SKIMMERS & VACUUM TRUCKS

Description	Make/Model	ID No.	Date	Location	Storage	BPD	Eff.	EDRC	Environ.	Maintenance
Belt Skimmer Vess	Marco /1C	6059	1991	Seattle - FES	Trailer	4971	74%	3679	Inland	Use/Monthly
Belt Skimmer Vess	Marco /1C	6060	1991	Seattle - FES	Trailer	4971	74%	3679	Inland	Use/Monthly
Brush Skimmer	Lamor/OPC2	6157	1991	Seattle - FES	20' Cont.	15096	95%	14341	Ocean	Use/Quarterly
Disc Skimmer	Morris/MI-30	6154	1991	Bellingham - Port	20' Cont.	3432	95%	3260	Inland	Use/Quarterly
Disc Skimmer	Morris/MI-30	6153	1991	Seattle - FES	Shelf	3432	95%	3260	Inland	Use/Quarterly
Disc Skimmer	Morris/MI-30	6152	1991	Tacoma - TOTE	20' Cont.	3432	95%	3260	Inland	Use/Quarterly
Rope Mop	OMI/MKII-4	6147	1988	Seattle - FES	Shelf	480	20%	96	Inland	Use/Quarterly
Rope Mop	OMI/MKII-4	6148	1988	Seattle - FES	Shelf	480	20%	96	Inland	Use/Quarterly
Rope Mop	OMI/MK II-9D	6149	1980	Seattle - FES	Trailer	2055	20%	411	Inland	Use/Quarterly
Vacuum Skimmer	Marco/VS50	6162	1992	Seattle - FES	20' Skid	6000	20%	1200	Inland	Use/Quarterly
Vacuum Skimmer	Vac-U-Max	N/A	N/A	Seattle - FES	Shelf	2055	20%	411	Inland	Use/Annual
Vacuum Skimmer	Vac-U-Max	N/A	N/A	Seattle - FES	Shelf	2055	20%	411	Inland	Use/Annual
Vacuum Skimmer	Vac-U-Max	N/A	N/A	Seattle - FES	Shelf	2055	20%	411	Inland	Use/Annual
Vacuum Skimmer	Vac-U-Max	N/A	N/A	Seattle - FES	Shelf	2055	20%	411	Inland	Use/Annual
Vacuum Skimmer	Vac-U-Max	N/A	N/A	Seattle - FES	Shelf	2055	20%	411	Inland	Use/Annual
Vacuum Trailer	White, 100 bbl	S21	N/A	Seattle - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	White, 100 bbl	S25	N/A	Seattle - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Skid, 24 bbl	C404	1997	Tacoma - CMC	Skid	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Skid, 16 bbl	C407	1998	Tacoma - CMC	Skid	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	White, 130 bbl	C406	1991	Tacoma - CMC	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Petro Steel, 70 bbl	2049	1985	Seattle - FES	Vehicle	3430	20%	686	Inland	Use/Weekly
Vacuum Truck	Thompson, 70 bbl	2054	1993	Seattle - FES	Vehicle	3430	20%	686	Inland	Use/Weekly
Vacuum Truck	Thompson, 70 bbl	2055	1993	Seattle - FES	Vehicle	3430	20%	686	Inland	Use/Weekly
Vacuum Truck	International, 60 bbl	S17	1987	Seattle - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	White, 70 bbl	S36	1990	Seattle - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	International, 70 bbl	S12	1991	Seattle - SPR	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	International, 70 bbl	C401	1996	Tacoma - CMC	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	International, 55 bbl	C402	1991	Tacoma - CMC	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	International, 35 bbl	C403	1990	Tacoma - CMC	Vehicle	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	International, 50 bbl	C405	1975	Tacoma - CMC	Vehicle	3430	10%	343	Inland	Use/Quarterly
Weir Skimmer	Desmi 250	6155	1991	Port Angeles - FM	20' Cont.	15096	20%	3019	Ocean	Use/Quarterly
Weir Skimmer	Douglas/2" Skim Pak	N/A	1988	Pt. Townsend - PT	20' Cont.	888	81%	719	Inland	Use/Quarterly
Weir Skimmer	Douglas/3" Oelo	N/A	1975	Seattle - FES	Shelf	1800	81%	1458	Inland	Use/Quarterly
Weir Skimmer	Douglas/3" Oelo	N/A	1975	Seattle - FES	Shelf	1800	81%	1458	Inland	Use/Quarterly
Weir Skimmer	Douglas/2" Skim Pak	N/A	1988	Seattle - FES	Shelf	888	81%	719	Inland	Use/Quarterly
Weir Skimmer	Desmi 250	6156	1991	Seattle - FES	20' Cont.	15096	20%	3019	Ocean	Use/Quarterly

Total Efficiency Derated Recovery Capacity (EDRC)

51,904 barrels/day

FES = Foss Environmental; FMC = Foss Maritime; CMC=Certified Marine Cleaning; SPR=Spencer Environmental



FOSS ENVIRONMENTAL RESOURCES

PUGET SOUND COTP ZONE

DECONTAMINATION & SALVAGE

Description	Make	ID No.	Date	Location	Storage	Qty.	Capacity	Maintenance
Compressor, 180 CFM	Gard Denv	N/A	N/A	Seattle - FES	Warehouse	2	180 CFM	Use/Annual
Compressor, 180 CFM	Inger Rand	N/A	N/A	Seattle - FES	Warehouse	2	180 CFM	Use/Annual
Generator, 7 KW	Yanmar	7086	N/A	Seattle - FES	Warehouse	1	7 KW	Use/Annual
Pressure Washer, hot, Traile	Whitco	N/A	1999	Seattle - FES	Warehouse	1	4000 psi	Use/Annual
Pressure Washer, hot, 4000	Landa	N/A	N/A	Seattle - FES	Warehouse	1	4000 psi	Use/Annual
Pressure Washer, hot, 3000	Landa	5015	1995	Seattle - FES	Warehouse	2	3000 psi	Use/Annual
Pressure Washer, hot, 3000	Landa	5015	1996	Seattle - FES	Warehouse	2	3000 psi	Use/Annual
Pump, air diaphragm, 3"	Wilden	N/A	N/A	Seattle - FES	Warehouse	1	225 gpm	Use/Annual
Pump, air diaphragm, 2"	Wilden	N/A	N/A	Seattle - FES	Warehouse	3	40 gpm	Use/Annual
Pump, air diaphragm, 2", Alum	Wilden	4008	N/A	Seattle - FES	Warehouse	1	40 gpm	Use/Annual
Pump, air diaphragm, 3"	Wilden	N/A	N/A	Seattle - FES	Warehouse	2	155 gpm	Use/Annual
Pump, air diaphragm, 3"	Wilden	N/A	N/A	Seattle - FES	Warehouse	4	155 gpm	Use/Annual
Pump, centrifugal, 4", diesel	Deulz/Blackman	4109	N/A	Seattle - FES	20' Container	1	625 gpm	Use/Annual
Pump, centrifugal, 4", diesel	Deulz/Blackman	4110	N/A	Seattle - FES	20' Container	1	625 gpm	Use/Annual
Pump, submersible, 3/4", 110	Jabsco	N/A	N/A	Seattle - FES	Warehouse	2	23 gpm	Use/Annual
Pump, submersible, 3/4", 100	Jabsco	N/A	N/A	Seattle - FES	Warehouse	2	23 gpm	Use/Annual
Pump, trash, 2", diesel	Yanmar	4116	N/A	Seattle - FES	Warehouse	2	260 gpm	Use/Annual
Pump, trash, 3", diesel	Yanmar	N/A	N/A	Seattle - FES	Warehouse	4	340 gpm	Use/Annual
Pump, trash, 3", gas	Robin	4047	N/A	Seattle - FES	Warehouse	6	340 gpm	Use/Annual
Pump, trash, 4", diesel	Yanmar	N/A	N/A	Seattle - FES	Warehouse	1	380 gpm	Use/Annual
Pump, Submersible, 4", Hyd	Marco	N/A	N/A	Seattle - FES	Warehouse	5	600 gpm	Use/Annual
Various hand tools and supp	Various	N/A	N/A	Seattle - FES	Warehouse	Misc.	N/A	Various

FES = Foss Environmental Services Company; FMC = Foss Maritime Company



FOSS ENVIRONMENTAL RESOURCES

PUGET SOUND COTP ZONE

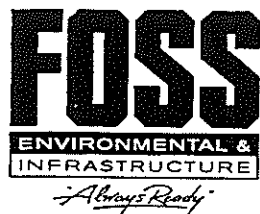
STORAGE & OFFLOADING

Description	Make	ID No.	Date	Location	Storage	Qty.	Each (bbl)	Total (bbl)	Eff.	Derated	Maint.
Barge Tankage	BMC-10 *	D682953	1985	Puget Sound - FM	Moorage	1	14,999	14,999	50%	7,500	Per ABS
Barge Tankage	FossS 185-P2 *	D623438	1980	Puget Sound - FM	Moorage	1	11,900	11,900	50%	5,950	Per ABS
Barge Tankage	Foss 185-P3 *	D622241	1980	Puget Sound - FM	Moorage	1	11,900	11,900	50%	5,950	Per ABS
Barge Tankage	Foss 248-P2 *	D630656	1981	Puget Sound - FM	Moorage	1	26,100	26,100	50%	13,050	Per ABS
Barge Tankage	FossS 286 *	D578543	1976	Puget Sound - FM	Moorage	1	45,500	45,500	50%	22,750	Per ABS
Drum	55 gallon	N/A	N/A	Seattle - FES	Whse.	20	1	26	100%	26	N/A
Drum	85 gallon	N/A	N/A	Seattle - FES	Whse.	10	2	20	100%	20	N/A
Facility Tankage	Panoco	N/A	Var.	Seattle - Pier 91	Fixed Tank	1	Various	5,000	50%	2,500	Vendor
Pillow Tank	Canflex/DLE-4	N/A	1991	Bellingham	20' Cont.	3	24	71	100%	71	Quarterly
Pillow Tank	Canflex/DLE	N/A	1991	Port Angeles	20' Cont.	1	476	20,000	100%	20,000	Quarterly
Pillow Tank	Canflex/DLE-4	N/A	1991	Port Angeles	20' Cont.	3	24	71	100%	71	Quarterly
Pillow Tank	Canflex/DLE-4	N/A	1991	Seattle - FES	20' Cont.	3	24	71	100%	71	Quarterly
Pillow Tank	Canflex/DLE-4	N/A	1991	Tacoma - TOTE	20' Cont.	3	24	71	100%	71	Quarterly
Portable Tank	Baker	N/A	Var.	Seattle	Trailer	63	Various	26,321	50%	13,161	Vendor
Portable Tank	Rain for Rent	N/A	Var.	Seattle	Trailer	41	Various	8,257	50%	4,129	Vendor
Portable Tank	Totetank, steel	N/A	1991	Seattle - FES	None	3	8	25	100%	25	Quarterly
Vacuum Truck	Petro Steel	2049	1985	Seattle - FES	Vehicle	1	70	70	100%	70	Quarterly
Vacuum Truck	Thompson	2054	1998	Seattle - FES	Vehicle	1	70	70	100%	70	Quarterly
Vacuum Truck	Thompson	2055	1998	Seattle - FES	Vehicle	1	70	70	100%	70	Quarterly

Total Derated Storage Capacity

95,556 barrels

* Ocean Certified



FOSS ENVIRONMENTAL RESOURCES

LONG BEACH COTP ZONE

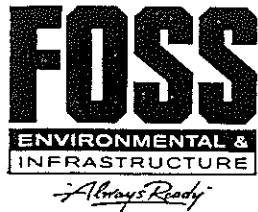
TRANSPORTATION & COMMUNICATIONS

Description	Make/Model	I.D. No.	Date	Location	Storage	Qty.	Maintenance
All Terrain Vehicle, 4x4 (3)	Honda	01, 02, 03	1999	Long Beach - FES	Trailer	3	Quarterly
Barge, Deck	Various	Various	Var.	Long Beach - FMC	Moorage	4	Per ABS
Tractor, diesel, vac pump, 80,000 gross	Freightliner	2035, 40	1992	Long Beach - FES	Vehicle	2	Quarterly
Trailer, stakebed, 28'	Utility	3060	1999	Long Beach - FES	Vehicle	1	Quarterly
Trailer, Incident Command Center, 28'	Pace	6080	1999	Long Beach - FES	Trailer	1	Quarterly
Trailer, boom, sandbags 18'	SPCNS	6070	1979	Long Beach - FES	Trailer	1	Quarterly
Trailer, boom, 20'	Big Tex	6081, 82	1999	Long Beach - FES	Trailer	2	Quarterly
Trailer, boom, 20'	Big Tex	6083	1999	Bakersfield - FES	Trailer	1	Quarterly
Trailer, vessel, 18'-28'	Various	Various	Var.	Long Beach - FES	Office	5	Quarterly
Trailer, Boom/Skimmer, 28'	Pace	3117	1999	Long Beach - FES	Trailer	1	Quarterly
Trailer, response, 12'	Carson	3101	1997	Bakersfield - FES	Trailer	1	Quarterly
Trailer, response, 45' *	TRLMO	3056	1977	Long Beach - FES	Trailer	1	Quarterly
Trailer, response, 40' *	Fruehauf	3037	1981	Ventura - FES	Trailer	1	Quarterly
Trailer, Boom, response, 45'	Fruehauf	3058	1992	Long Beach - FES	Trailer	1	Quarterly
Trailer, response, 45' *	Pines	3059	1992	Bakersfield - FES	Trailer	1	Quarterly
Trailer, 30" Boom, response, 45'	TRLMO	3055	1993	Long Beach - FES	Trailer	1	Quarterly
Trailer, response, 20'	Carson	3125	1999	Long Beach - FES	Trailer	1	Quarterly
Trailer, response, 20'	Carson	3126	2000	Long Beach - FES	Trailer	1	Quarterly
Trailer, Skiff, 18'	Big Tex	3118	1999	Long Beach - FES	Trailer	1	Quarterly
Trailer, Skiff, 18'	Big Tex	6030	1985	Long Beach - FES	Trailer	1	Quarterly
Trailer, ATV, 12'	Big Tex	W-100	1997	Long Beach - FES	Trailer	1	Quarterly
Trailer, sorbent, 20'	Big Tex	6071	1979	Long Beach - FES	Trailer	1	Quarterly
Truck, 10 Yard Dump	Ford LTL 9000	2053	1993	Long Beach - FES	Vehicle	1	Quarterly
Truck, Vacuum	Guzzler 4816	2039	1985	Long Beach - FES	Vehicle	1	Quarterly
Truck, diesel, crewcab stakebed, 4x4	Ford F-550	1113	2000	Long Beach - FES	Vehicle	1	Quarterly
Truck, diesel, crewcab, 4x4, 1 ton	Ford F-350	1094, 1903	1999	Long Beach - FES	Vehicle	2	Quarterly
Truck, diesel, pickup, 1 ton	Ford F-250	1068, 1903	1997	Long Beach - FES	Vehicle	3	Quarterly
Truck, diesel, pickup, 4x4, 1 ton	Ford F-250	1074, 75	1997	Long Beach - FES	Vehicle	2	Quarterly
Truck, diesel, pickup, 4x4, 1 ton	Ford F-250	1903	1998	Long Beach - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, lift gate, 1 ton	Ford F-250	1078	1998	Long Beach - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, lift gate, 1 ton	Ford F-350	1038	1992	Long Beach - FES	Vehicle	1	Quarterly
Truck, diesel, rolloff, 40,000 gross	Volvo	2043	1987	Long Beach - FES	Vehicle	1	Quarterly
Truck, diesel, stakebed, 1 1/2 ton	Ford	1059	1997	Long Beach - FES	Vehicle	1	Quarterly
Truck, diesel, stakebed, 1 1/2 ton	Ford	1903	1999	Long Beach - FES	Vehicle	2	Quarterly
Truck, diesel, pickup, 1 ton	Ford F-250	1903	1997	Long Beach - FES	Vehicle	2	Quarterly
Truck, Crane, 14 Ton	International	1903	1999	Long Beach - FES	Vehicle	1	Quarterly
Utility Vehicle, 4x4	Chev	1103	2000	Long Beach - FES	Vehicle	1	Quarterly
Utility Vehicle, 4x4	Ford	1903	1998	Long Beach - FES	Vehicle	2	Quarterly
Van, diesel, box, 31,500 gross, 24'	Chev	1076	1996	Long Beach - FES	Vehicle	1	Quarterly
Van, diesel, box, 31,500 gross, 24'	GMC	2026	1978	Long Beach - FES	Vehicle	1	Quarterly
Van, diesel, 15 passenger	Ford	1105	2000	Long Beach - FES	Vehicle	1	Quarterly

* Outfitted with equipment, materials, ppe and hand tools to support a minimum of 150 personnel for shoreline cleanup

Cellular Phone/Radio	NEXTEL	N/A	1997	Long Beach - FES	Office	40	As Needed
Satellite Phone	Globalstar	N/A	2000	Long Beach - FES	Office	2	As Needed
Radio, VHF	Standard	N/A	1997	Long Beach - FES	Office/Vsl	10	As Needed
Radio, VHF	ICOM	N/A	1999	Long Beach - FES	Truck	2	As Needed
Radio w/ Repeater	Motorola	N/A	1999	Long Beach - FES	IC Center	12	As Needed
24-Hour Customer Service Center in Long Beach equipped w/ UHF, VHF, SSB & Microwave Links							

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FOSS ENVIRONMENTAL RESOURCES

LONG BEACH COTP ZONE

CONTAINMENT BOOM & VESSELS

Description	Make	I.D. No.	Date	Location	Storage	Size (in)	Qty.	Enviorn.	Maintenance
Contractor Boom	Am. Marine	6139	1995	Long Beach - ABM	Bundles	8 x 12	400	Inland	Use/Yearly
Contractor Boom	Am. Marine	6139	1994	Long Beach - FES	27' Monark	8 x 12	1,800	Inland	Use/Yearly
Contractor Boom	Am. Marine	6139	1994	Long Beach - FES	Deck Boat	8 x 12	700	Inland	Use/Yearly
Contractor Boom	Am. Marine	6139	1994	Long Beach - FES	38' FRV	8 x 12	2,000	Inland	Use/Yearly
Contractor Boom	Am. Marine	6251	1994	Long Beach - FES	Trailer	8 x 12	1,800	Inland	Use/Yearly
Contractor Boom	Am. Marine	6251	1994	Bakersfield - FES	Trailer	8 x 12	1,800	Inland	Use/Yearly
Contractor Boom	Am. Marine	6251	1994	Long Beach - FES	Trailer	8 x 12	1,800	Inland	Use/Yearly
Contractor Boom	Am. Marine	6182	1995	Long Beach - FES	40' Cont.	8 x 12	1,900	Inland	Use/Yearly
Contractor Boom	Am. Marine	6249	1995	Long Beach - FES	45' Trailer	8 x 12	4,500	Inland	Use/Yearly
Contractor Boom	Am. Marine	6139	2000	Long Beach - FES	45' Trailer	18 x 12	2,000	Ocean	Use/Yearly
Contractor Boom	Am. Marine	6139	2000	Long Beach - FES	20' Cont.	8 x 12	5,000	Inland	Use/Yearly
Hi-Sprint	Vikoma	6139	1991	Long Beach - FES	Hyd. Reel	18 x 16	500	Ocean	Use/Yearly
Contractor Boom	Am. Marine	F-100	1995	Long Beach - FMC	Bundles	8 x 12	600	Inland	Use/Yearly
Contractor Boom	Various	A-100	1992	Long Beach - ST	Vessels	8 x 12	1,500	Inland	Use/Yearly
Contractor Boom	Am. Marine	6248	1995	Long Beach - TOSCO	20' Cont.	8 x 12	1,500	Inland	Use/Yearly
Contractor Boom	Am. Marine	6139	1995	Long Beach - VA	20' Cont.	8 x 12	900	Inland	Use/Yearly
Contractor Boom	Am. Marine	6247	1995	Long Beach - FMC	20' Cont.	8 x 12	1,500	Inland	Use/Yearly
Contractor Boom	Am. Marine	6139	1995	Long Beach - FMC	Barge	8 x 12	2,400	Inland	Use/Yearly

Total Containment Boom

32,600

Description	Make	I.D. No.	Date	Location	Storage	Size (ft)	Qty.	Spd. (kts)	Maintenance
Command Vessel	Mako	H-100	1987	Long Beach - FES	Moorage	22 x 8	1	40	Use/Monthly
Crewboat	Various	Devon	1992	Long Beach - ST	Moorage	40	1	22	Per ABS
Platform Vessel	Marco	6005	1975	Long Beach - FES	Moorage	27 x 9	1	18	Use/Monthly
Response Vessel	Grady White	H-200	1995	Long Beach - FES	Moorage	27 x 8	1	45	Use/Monthly
Response Vessel	Kvichak		1999	Long Beach - FES	Moorage	36 x 10	1	15	Use/Monthly
Response Vessel	LVCN	W-200	1999	Long Beach - FES	Moorage	38 x 10	1	20	Use/Monthly
Response Vessel	Monark	6241	1975	Long Beach - FES	Moorage	32 x 10	1	50	Use/Monthly
Response Vessel	Munson	6010	1990	Long Beach - FES	Moorage	18 x 6	1	30	Use/Monthly
Response Vessel	Munson	6242	1990	Long Beach - FES	Moorage	18 x 6	1	30	Use/Monthly
Skiffs w/ outboard	Various	Various	Var.	Long Beach - FES	Trailer	12 x 5	14	20	Use/Quarterly
Skiffs w/ outboard	Lund	Various	1995	Long Beach - FES	Trailer	16 x 6	4	20	Use/Quarterly
Tugs/Foss Maritime	Various	N/A	Var.	Long Beach - FMC	Moorage	Various	13	Various	Per ABS
Workboat	Various	TB-100	Var.	Long Beach - TBUS	Moorage	24-38	4	25	Use/Monthly
Workboat	Various	V-1-400	Var.	Long Beach - VA	Moorage	22-33	4	25	Use/Monthly
Workboat w/Boom	Various	Chris.	1995	Long Beach - ST	Moorage	50	1	12	Per ABS
Workboat/Tug	Various	Clive	1973	Long Beach - ST	Moorage	87	1	11	Per ABS
Workboat/Tug	Various	Richard	1976	Long Beach - ST	Moorage	100	1	11	Per ABS
Workboat/Tug	Various	Paul R.	1975	Long Beach - ST	Moorage	36	5	12	Per ABS

Total Boats

56

FES = Foss Environmental; FMC = Foss Maritime; VA = Vessel Assist; WM = Western Maritime; TBUS = Tug Boat US; ST = Sylvester Tug



FOSS ENVIRONMENTAL RESOURCES

LONG BEACH COTP ZONE

SKIMMERS & VACUUM TRUCKS

Description	Make/Model	ID No.	Date	Location	Storage	BPD	Eff.	EDRC	Environ.	Maintenance
Belt Skimmer Vessel	Marco / Class 1	6004	1983	Long Beach - FES	Moorage	4971	74%	3679	Inland	Use/Quarterly
Brush/Wier Skimmer	Aqua-Guard/RBS-20	6303	1996	Long Beach - FES	28' Trailer	7200	95%	6840	Ocean	Use/Quarterly
Brush/Wier Skimmer	Aqua-Guard/RBS-10	6303	1996	Long Beach - FES	28' Trailer	3600	95%	3420	Ocean	Use/Quarterly
Wier Skimmer	Foilex 150	6305	1999	Long Beach - FES	28' Trailer	5280	20%	1056	Ocean	Use/Quarterly
Wier Skimmer	Foilex 150	6303	1996	Long Beach - FES	28' Trailer	5280	20%	1056	Ocean	Use/Quarterly
Disc Skimmer	Vikoma / Komara 12K	6304	1991	Long Beach - FES	28' Trailer	2400	95%	2280	Inland	Use/Quarterly
Disc Skimmer	Vikoma / Kebab 600 E	6304	1991	Long Beach - FES	Whse.	1370	20%	274	Inland	Use/Quarterly
Disc Skimmer	Vikoma / Kebab 600 E	6304	1991	Long Beach - FES	Whse.	1370	20%	274	Inland	Use/Quarterly
Disc Skimmer	Vikoma / Kebab 600 E	6304	1991	Long Beach - FES	Whse.	1370	20%	274	Inland	Use/Quarterly
Disc Skimmer	Vikoma / Kebab 600 h	6304	1991	Long Beach - FES	Whse.	1370	20%	274	Inland	Use/Quarterly
Wier Skimmer	Megator 3"	6307	1999	Long Beach - FES	28' Trailer	3600	20%	720	Inland	Use/Quarterly
Rope Skimmer	OMI Mark IV E	6304	1980	Long Beach - FES	Pallet	240	20%	48	Inland	Use/Quarterly
Rope Skimmer	OMI Mark IV E	6304	1980	Long Beach - FES	Pallet	240	20%	48	Inland	Use/Quarterly
Rope Skimmer	OMI Mark IV E	6304	1980	Long Beach - FES	Pallet	240	20%	48	Inland	Use/Quarterly
Rope Skimmer	OMI Mark IV D	6304	1981	Long Beach - FES	Pallet	480	20%	96	Inland	Use/Quarterly
Rope Skimmer	OMI Mark IV D	6304	1981	Long Beach - FES	Pallet	480	20%	96	Inland	Use/Quarterly
Rope Skimmer	OMI Mark IV D	6304	1981	Long Beach - FES	Pallet	480	20%	96	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	3034	1985	Long Beach - FES	Trailer	3430	20%	686	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	3035	1985	Long Beach - FES	Trailer	3430	20%	686	Inland	Use/Quarterly
Vacuum Trailer	Petro Steel, 1000 gal	3105	1991	Long Beach - FES	Trailer	3430	20%	686	Inland	Use/Quarterly
Vacuum Truck	White, 35 bbl	2500	1980	Long Beach - FES	Vehicle	3430	20%	686	Inland	Use/Quarterly
Wier Skimmer	Roto Drum 70	6305	1991	Long Beach - FES	10' Cont	10560	92%	9715	Ocean	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Certified, 120 bbl	N/A	N/A	Long Beach - TT	Trailer	3430	10%	343	Inland	Use/Quarterly

Total Efficiency Derated Recovery Capacity (EDRC)

36,468 barrels/day

FES = Foss Environmental Services Company; FMC = Foss Maritime Company; TT = Thomas Trucking



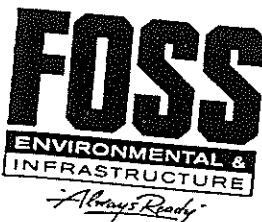
FOSS ENVIRONMENTAL RESOURCES

LONG BEACH COTP ZONE

DECONTAMINATION & SALVAGE

Description	Make	ID No.	Date	Location	Storage	Qty.	Capacity	Maintenance
Compressor, 185 CFM	Ingersoll/Rand	1903	1997	Long Beach - FES	Trailer	1	185 CFM	Each Use
Decon Pool, 100'x20'	Seattle Tarp	6320	1997	Long Beach - FES	Warehouse	1	N/A	Each Use
Decon Pool, 100'x20'	Seattle Tarp	6322	2000	Long Beach - FES	Warehouse	1	N/A	Each Use
Decon Pool, 50'x20'	Seattle Tarp	6321	1997	Long Beach - FES	Warehouse	1	N/A	Each Use
Dual Pressure Washer, 6000 psi	Steam-x	5038	1999	Long Beach - FES	Trailer	2	6000 psi	Each Use
Dual Pressure Washer, 6000 psi	Steam-x	5039	1999	Long Beach - FES	Trailer	2	6000 psi	Each Use
Generator, 3.7 KW, diesel	Yanmar	7020	1996	Long Beach - FES	Warehouse	1	3.7 KW	Each Use
Generator, 7.5 KW, diesel	Kubota	7021	N/A	Long Beach - FES	Warehouse	1	7.5 KW	Each Use
Hanging Racks - Boom Decon	FES	N/A	N/A	Long Beach - FES	Warehouse	1	N/A	Each Use
Hydroblaster, 6000 psi, hot	Mulsbary	5022	N/A	Long Beach - FES	Trailer	1	6000 psi	Each Use
Hydroblaster, 6000 psi, hot	Mulsbary	5023	N/A	Long Beach - FES	Trailer	1	6000 psi	Each Use
Pressure Washer, hot, 3000 psi	Socus	5037	1996	Long Beach - FES	Trailer	1	3000 psi	Each Use
Pump, air diaphragm, 1", acid	Yamada	4074	1998	Long Beach - FES	Warehouse	1	100 gpm	Each Use
Pump, air diaphragm, 2-3"	Wilden	4133	1991	Long Beach - FES	Warehouse	2	185 gpm	Each Use
Pump, air diaphragm, 3-4"	Wilden	4074	1991	Long Beach - FES	Warehouse	3	200 gpm	Each Use
Pump, air diaphragm, 3-4", acid	Yamada	4074	1998	Long Beach - FES	Warehouse	1	100 gpm	Each Use

FES = Foss Environmental Services Company



FOSS ENVIRONMENTAL RESOURCES SAN FRANCISCO COTP ZONE TRANSPORTATION & COMMUNICATIONS

Description	Make/Model	I.D. No.	Date	Location	Storage	Qty.	Maintenance
All Terrain Vehicle, 5 wheel w/ Trailer	John Deere	9001	1989	Eureka - FES	Trailer 3026	1	Quarterly
All Terrain Vehicle, 6 wheel w/ Trailer	John Deere	9073, 75	1998	Alameda - FES	Whse.	2	Quarterly
Backhoe - John Deere	John Deere	9070	1998	Alameda - FES	Job Sites	1	Quarterly
Bins, 20 yard dry storage	ESP	3129	2000	Alameda - FES	Yard	8	Use/Quarterly
Crane Truck, diesel, 5 ton	GMC	2005	1989	Alameda - FES	Vehicle	1	Quarterly
Deck Barge w/ ramp	Various	F 194, 5	Var.	Oakland - AN	Moorage	2	Per ABS
Deck Barge, 110' x 25', 130' x 50'	Various	DT-A17, 19, 21	1994	Alameda - TD	Moorage	3	Quarterly
Response Barge, 21' x 32'	Various	N/A	Var.	Alameda - ZC	Moorage	1	Vendor
Spud Barge, 80' x 32', 48' x 16" spuds	Various	N/A	Var.	Alameda - ZC	Moorage	1	Vendor
Tractor (Bin Truck) w/trailer	Freightliner	2061	1992	Alameda - FES	Vehicle	1	Quarterly
Tractor, diesel, 80k gvw	Freightliner	2011, 17, 42	1992	Alameda - FES	Vehicle	3	Quarterly
Trailer 26' - equipment trailer	Trailmobile	3110	1998	Alameda - FES	Trailer	1	Quarterly
Trailer 26' - equipment trailer	Beaver Trailer	5045	1996	Alameda - FES	Trailer	1	Quarterly
Trailer, 30' Drum Transport	Comet	3025	1981	Alameda - FES	Trailer	1	Quarterly
Trailer, Boom	Various	N/A	Var.	Alameda - ZC	Trailer	3	Vendor
Trailer, Boom Stand-By/ER, 24'	Carson	3106	1998	Alameda - FES	Trailer	1	Quarterly
Trailer, ER, 20' w/gear	Carson	3107	1989	Eureka - FES	Trailer	1	Quarterly
Trailer, Incident Command, 48'	Trailmobile	3115	1997	Alameda - FES	Trailer	1	Quarterly
Trailer, Shoreline Response, 48' *	Trailmobile	3082	1992	Alameda - FES	Trailer	1	Quarterly
Trailer, Storage for sorbents, 45'	Trailmobile	3119	1994	Alameda - FES	Trailer	1	Quarterly
Trailer, Storage for sorbents, 48'	Trailmobile	TIP	1997	Alameda - FES	Trailer	1	Quarterly
Truck, bobtail, waste hauler	Mack	2050	1988	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, 3 ton	GMC	T-130	1984	Alameda - TD	Vehicle	1	Quarterly
Truck, diesel, 3/4 ton	Ford F250	1064	1997	Eureka - FES	Vehicle	1	Quarterly
Truck, diesel, 3/4 ton	Ford F250	1084	1999	Eureka - FES	Vehicle	1	Quarterly
Truck, diesel, 5 ton	GMC	T-140	1984	Alameda - TD	Vehicle	1	Quarterly
Truck, diesel, crewcab, 2x4, 1 ton	Ford F350	1080	1999	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, crewcab, 4x4, 1 ton	Ford F350	1082	1999	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, flatbed w/gate 2 ton	Ford F550	1118	2000	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, flatbed, 1 ton	Ford F350	1009	1992	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, flatbed, 1 ton	Ford F350	T-100	1997	Alameda - TD	Vehicle	1	Quarterly
Truck, diesel, liftgate, 3/4 ton	Ford F250	1065	1997	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, 3/4 ton	Ford F250	1057	1997	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, x/cab, 2x4, 3/4 ton BE	Ford F250	1111	2000	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, x/cab, 2x4, 3/4 ton MW	Ford F250	1109	2000	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, 4x4, 1 ton TB	Ford F350	1110	2000	Alameda - FES	Vehicle	1	Quarterly
Truck, diesel, x/cab, 4x4, 1 ton yard	Ford F350	1114	2000	Alameda - FES	Vehicle	1	Quarterly
Truck, Dump Truck	Freightliner	2051	1994	Alameda - FES	Vehicle	1	Quarterly
Truck, ER Van w/genset	Frtliner/Grumar	2056	1998	Alameda - FES	Vehicle	1	Quarterly
Truck, gas, pickup, 3/4 ton	Ford F250	1010	1992	Alameda - FES	Vehicle	1	Quarterly
Truck, gas, pickup, 3/4 ton	Various	Various	1998	Alameda - FES	Vehicle	4	Quarterly

Outfitted with equipment, materials, ppe and hand tools to support a minimum of 150 personnel for shoreline cleanup							
Cellular Phone	Motorola	Various	1997	Alameda - FES	Office	4	As Needed
Cellular Phone	Motorola	Various	2000	Eureka - FES	Office	2	As Needed
Cellular Phone	Motorola	Various	1999	Alameda - FES	Office	35	As Needed
Radio, UHF/VHF	Motorola	Various	1999	Eureka - FES	Office	2	As Needed
Radio, VHF	Standard	Various	1997	Alameda - FES	Office	3	As Needed
Radio/Cellular Phones	NEXTEL	Various	1999	Alameda - FES	Office	12	As Needed
			1997	Alameda - FES	Office	20	As Needed

Foss Environmental Services Company; FMC = Foss Maritime Company; TD = Trident; AN = American Navigation



FOSS ENVIRONMENTAL RESOURCES

SAN FRANCISCO COTP ZONE

CONTAINMENT BOOM & VESSELS

Description	Make	I.D. No.	Date	Location	Storage	Size (in)	Qty.	Enviorn.	Maintenance
Contractor Boom	Kepner	6312	1994	Alameda - FES	32' FRV	8 x 12	1,800	Inland	Use/Yearly
Contractor Boom	Kepner	6312	1993	Alameda - FES	20' Trailer 3104	8 x 12	1,100	Inland	Use/Yearly
Contractor Boom	Kepner	6312	1993	Eureka - FES	18' Trailer 3103	8 x 12	2,000	Inland	Use/Yearly
Contractor Boom	Kepner	6312	1995	Alameda - FES	24' Trailer 3106	8 x 12	1,400	Inland	Use/Yearly
Contractor Boom	Kepner	6312	1996	Alameda - FES	Yard	12 x 18	1,000	Inland	Use/Yearly
Contractor Boom	Kepner	6312	1992	Alameda - FES	26' Trailer 3110	8 x 12	3,000	Inland	Use/Yearly
Contractor Boom	Am. Marine	T-100	1993	Alameda - TD	Trailer	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Kepner	T-100	1992	Alameda - TD	Flatop Boat	8 x 12	1,200	Inland	Use/Yearly
Fence Boom	Slickbar	T-200	1994	Alameda - TD	Moorage	24"	12,500	Inland	Use/Yearly
Contractor Boom	Am. Marine	F-100	1993	Richmond - FMC	Barges	8 x 12	2,400	Inland	Use/Yearly
Contractor Boom	Kepner	T-300	2000	Alameda - TD	1 ton trailer	8 x 12	2,500	Inland	Use/Yearly
Contractor Boom	Am. Marine	6312	2000	Alameda - FES	Trailer	8 x 12	5,000	Inland	Use/Yearly
Inflatable Boom	Vikoma	6312	1973	Eureka - FES	Vessel	47"	1,600	Ocean	Use/Yearly
Contractor Boom	Kepner	6312	1995	Alameda - FES	Yard / Pallets	8 x 12	4,000	Inland	Use/Yearly
Contractor Boom	Kepner	N/A	Var.	Alameda - ZC	Trailer/Barge	8 x 12	6,000	Inland	Use/Yearly

Total Containment Boom

46,500

Description	Make	I.D. No.	Date	Location	Storage	Size (ft)	Qty.	Spd. (kts)	Maintenance
Response Vessel	Raider	6056	1978	Alameda - FES	Moorage	32 x 12	1	35	Use/Monthly
Response Vessel	Pursuit	Ready I	1990	Alameda - FES	Moorage	26 x 8	1	50	Use/Monthly
Response Vessel	Whaler	T-523	1993	Alameda - TD	Moorage	25 x 8	1	45	Use/Monthly
Response Vessel	Monark	T-522	1996	Alameda - TD	Moorage	21 x 8	1	25	Use/Monthly
Response Vessel	Whaler	6294	1996	Alameda - FES	Moorage	22 x 8	1	35	Use/Monthly
Response Vessel	Whaler	6032	1984	Eureka - FES	Boat Trailer	17 x 6	1	25	Use/Monthly
Response Vessel	Whaler	T-515	1982	Alameda - TD	Moorage	18 x 6	1	35	Use/Monthly
Response Vessel	Whaler	T-510	1994	Alameda - TD	Boat Trailer	19 x 6	1	25	Use/Monthly
Response Vessel	Whaler	T-520	1994	Alameda - TD	Boat Trailer	21 x 6	1	25	Use/Monthly
Response Vessel	Whaler	T-521	1994	Alameda - TD	Boat Trailer	21 x 6	1	25	Use/Monthly
Response Vessel	Whaler	N/A	Var.	Alameda - ZC	Moorage	21 x 6	1	25	Use/Monthly
Response Vessel	Whaler	N/A	Var.	Alameda - ZC	Moorage	17 x 6	3	25	Use/Monthly
Skiff w/ Motor	Westcoaster	6297	1996	Alameda - FES	32' FRV	14 x 5	1	10	Use/Quarterly
Skiff w/ Motor	Westcoaster	6298	1996	Alameda - FES	24' Trailer 3106	12 x 4	1	10	Use/Quarterly
Skiff w/ Motor	Punt	T-501	1991	Alameda - TD	Yard	6 x 4	1	10	Use/Quarterly
Skiff w/ Motor	Various	6299	N/A	Alameda - FES	Boat Trailer	16 x 5	1	10	Use/Quarterly
Skiff w/ Motor	Various	6300	N/A	Alameda - FES	Trailer 5046	16 x 5	1	10	Use/Quarterly
Skiff w/ Motor	Various	6301	N/A	Alameda - FES	Trailer 5046	14 x 4	1	10	Use/Quarterly
Skiff w/ Motor	Various	6302	N/A	Alameda - FES	Trailer 5046	14 x 4	1	10	Use/Quarterly
Skiff w/ Motor	Various	6303	N/A	Alameda - FES	Trailer 5046	12 x 4	1	10	Use/Quarterly
Workboat	Navy	T-541	N/A	Alameda - TD	Moorage	50 x 12	1	18	Use/Monthly
Workboat	Navy	T-542	N/A	Alameda - TD	Yard	50 x 12	1	18	Use/Monthly
Workboat/Flatop	Navy	T-543	N/A	Alameda - TD	Dock	30 x 10	1	12	Use/Monthly
Workboat/Tug	YWB	T-540	N/A	Alameda - TD	Moorage	45 x 11	1	14	Per ABS
Workboat/Tug	Various	Andrew	N/A	Richmond - FMC	Moorage	106 x 41	1	14	Per ABS
Workboat/Tug	Various	Anna	N/A	Richmond - FMC	Moorage	60 x 24	1	14	Per ABS
Workboat/Tug	Various	Brynn	N/A	Richmond - FMC	Moorage	96 x 39	1	14	Per ABS
Workboat/Tug	Various	Claudia	N/A	Richmond - FMC	Moorage	73 x 28	1	14	Per ABS
Workboat/Tug	Various	Keegan	N/A	Richmond - FMC	Moorage	110 x 34	1	14	Per ABS

Total Boats

27

FES = Foss Environmental Services Company; FMC = Foss Maritime Company; TD = Trident; ZC = Zaccor Companies



FOSS ENVIRONMENTAL RESOURCES

SAN FRANCISCO COTP ZONE

SKIMMERS & VACUUM TRUCKS

Description	Make/Model	ID No.	Date	Location	Storage	BPD	Eff.	EDRC	Environ.	Maintenance
Belt Skimmer Vessel	Marco/IC	6030	1979	Alameda - FES	Trailer	4971	74%	3679	Inland	Monthly
Belt Skimmer Vessel	JBFI DIP 3001	T-640	1973	Alameda - TD	Whse.	3429	94%	3223	Inland	Use/Quarterly
Disc Skimmer	Vikoma/12K	6178	1980	Alameda - FES	Whse.	2400	95%	2280	Inland	Use/Quarterly
Foilex	TDS-150	TBD	1999	Alameda - FES	Whse.	5280	20%	1056	Open	Use/Quarterly
Vacuum Skimmer	Vac-U-Max	4092	1992	Alameda - FES	Whse.	2055	20%	411	Inland	Use/Quarterly
Vacuum Skimmer	Vac-U-Max	4093	1999	Alameda - FES	Whse.	2055	20%	411	Inland	Use/Quarterly
Vacuum Skimmer	Vac-U-Max	4094	1999	Alameda - FES	Whse.	2055	20%	411	Inland	Use/Quarterly
Vacuum Trailer	Certified, 130 bbl	3012	1992	Alameda - FES	Trailer	3430	20%	686	Inland	Use/Quarterly
Vacuum Trailer	Martin, 120 bbl	3028	1979	Alameda - FES	Trailer	3430	20%	686	Inland	Use/Quarterly
Vacuum Trailer	Martin, 120 bbl	3030	1979	Alameda - FES	Trailer	3430	20%	686	Inland	Use/Quarterly
Vacuum Trailer	Thompson, 120	2063	2000	Alameda - FES	Trailer	3430	20%	686	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Bakersfield - CV	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Bakersfield - CV	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Bakersfield - CV	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Bakersfield - CV	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Bakersfield - CV	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Bakersfield - CV	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Bakersfield - CV	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Bakersfield - CV	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Bakersfield - CV	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Benicia - UE	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Benicia - UE	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Richmond - SS	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Trailer	Various, 120 bbl	N/A	N/A	Richmond - SS	Trailer	3430	10%	343	Inland	Use/Quarterly
Vacuum Truck	Freightliner, 70 bbl	T-210	1992	Alameda - TD	Vehicle	3430	20%	686	Inland	Use/Quarterly
Wier Skimmer	2" OLEO Skimmer	6100	1994	Alameda - FES	SL Trailer	888	81%	719	Inland	Use/Quarterly
Wier Skimmer	2" Skimpak	6295-1	1991	Alameda - FES	SL Trailer	888	81%	719	Inland	Use/Quarterly
Wier Skimmer	2" Skimpak	6295-2	1993	Alameda - FES	SL Trailer	888	81%	719	Inland	Use/Quarterly
Wier Skimmer	2" Skimpak	6295-3	1994	Eureka - FES	Trailer	888	81%	719	Inland	Use/Quarterly
Wier Skimmer	2" Skimpak	9296	1995	Alameda - FES	Whse.	888	81%	719	Inland	Use/Quarterly
Wier Skimmer	3" Skimpak	6244-1	1991	Alameda - FES	Whse.	1800	81%	1458	Inland	Use/Quarterly
Wier Skimmer	3" Skimpak	6244-2	1991	Eureka - FES	Trailer	1800	81%	1458	Inland	Use/Quarterly
Wier Skimmer	3" Skimpak	6244-3	1991	Alameda - FES	SL Trailer	1800	81%	1458	Inland	Use/Quarterly

Total Efficiency Derated Recovery Capacity (EDRC) 27,673 barrels/day

FES = Foss Environmental; FMC = Foss Maritime; TD = Trident; UE = Universal Env.; SS = Sturgeon & Son; CV = Cummings Vac.



FOSS ENVIRONMENTAL RESOURCES

SAN FRANCISCO COTP ZONE

DECONTAMINATION & SALVAGE

Description	Make	ID No.	Date	Location	Storage	Qty.	Capacity	Maintenance
Compressor, 175 CFM	Ingersoll/Rand	T-732	1996	Alameda - TD	Yard	1	175 CFM	Use/Quarterly
Compressor, 175 CFM	Sulair	7021	1996	Alameda - FES	Yard	1	185 CFM	Use/Quarterly
Compressor, 375 CFM	Sulair	7907	1998	Alameda - FES	Yard	1	375 CFM	Use/Quarterly
Decon Pool, 10'x15'	Seattle Tarp	N/A	1996	Alameda - FES	Trailer 3082	2	N/A	Use
Decon Pool, 15'x30'	Seattle Tarp	N/A	1996	Alameda - FES	Trailer 3082	2	N/A	Use
Decon Pool, 25'x50'	Seattle Tarp	N/A	1996	Alameda - FES	Trailer 3082	1	N/A	Use
Generator, 15 KW, Diesel w/ welder	Kubota	T-732	1997	Alameda - TD	Yard	1	15 KW	Use/Quarterly
Generator, 4 KW, Diesel	Yanmar	T-730	1996	Alameda - TD	Yard	2	4 KW	Use/Quarterly
Generator, 4 KW, Gas	Kawasaki	7022	1994	Alameda - FES	Yard	1	4 KW	Use/Quarterly
Generator, 5 KW, Gas	Gentech	7023	1998	Eureka - FES	Trailer 3107	1	5 KW	Use/Quarterly
Generator, 5 KW, Gas	Powerguard	N/A	1994	Alameda - TD	Warehouse	1	5 KW	Use/Quarterly
Generator/Light Tower, 5KW	Nitelite	A606	1997	Alameda - FES	Yard	1	5 KW	Use/Quarterly
Hydroblaster 20,000 PSI Butterworth	Cummins820XDT	5012	1996	Alameda - FES	Yard	1	20,000 psi	Use/Quarterly
Pressure Washer, 2000 psi, hot	Landa	T-450	1995	Alameda - TD	Warehouse	1	2000 psi	Use/Quarterly
Pressure Washer, 3000 psi, hot	MI-T-M 14	5043	1995	Alameda - FES	Trailer	1	3000 psi	Use/Quarterly
Pressure Washer, 3000 psi, hot	Yanmar	T-451,2	1995	Alameda - TD	Warehouse	2	3000 psi	Use/Quarterly
Pressure Washer, 3000 psi, hot, tank	Toff	5036	1995	Alameda - FES	Trailer 3102	1	3000 psi	Use/Quarterly
LEL Meter 6x-82	Multi Rae	A8658	1998	Eureka - FES	Trailer 3107	1	N/A	Use/Quarterly
LEL Meter	Gastech HS-95	8077	1999	Alameda - FES	Warehouse	1	N/A	Use/Quarterly
LEL Meter	Gastech OX-95	8078	1999	Alameda - FES	Warehouse	1	N/A	Use/Quarterly
Draeger Accuro Gas Detector Pump	Draeger	8079	1999	Alameda - FES	Warehouse	1	N/A	Use/Quarterly
Radiation Alert Minitor 4/4EC	Rad Meter	8080	1999	Alameda - FES	Warehouse	1	N/A	Use/Quarterly
Photo Vac 2020	PID Photo Vac	8081	1999	Alameda - FES	Warehouse	1	N/A	Use/Quarterly
Scott Airpack - 30 min	Scott	7908	1998	Alameda - FES	Warehouse	4	N/A	Use/Quarterly
Scott Airpack - 30 min	Scott	7909	1998	Alameda - FES	Warehouse	4	N/A	Use/Quarterly
Pump, air diaphragm, 2"	Wilden	3124	1997	Alameda - FES	Warehouse	1	155 gpm	Use/Quarterly
Pump, air diaphragm, 2"	Wilden	T-300	1996	Alameda - FES	Warehouse	1	155 gpm	Use/Quarterly
Pump, Chemical, air diaphragm, 2"	Wilden	8082	2000	Alameda - FES	ER Van	1	155 gpm	Use/Quarterly
Pump, Chemical, air diaphragm, 2"	Wilden	TBA	2000	Alameda - FES	ER Van	1	155 gpm	Use/Quarterly
Pump, air diaphragm, 3"	Wilden	3122	1997	Alameda - FES	Yard	1	155 gpm	Use/Quarterly
Pump, air diaphragm, 3"	Wilden	3123	1997	Alameda - FES	Yard	1	155 gpm	Use/Quarterly
Pump, air diaphragm, 3"	Wilden	8082	1997	Alameda - FES	Yard	1	155 gpm	Use/Quarterly
Pump, air diaphragm, 3"	Wilden	T-310	1996	Alameda - FES	Warehouse	1	155 gpm	Use/Quarterly
Pump, air diaphragm, 4"	Wilden	T-411	2000	Alameda - TD	Warehouse	1	630 gpm	Use/Quarterly
Pump, air diaphragm, 4"	Wilden	T-412	2000	Alameda - TD	Warehouse	1	630 gpm	Use/Quarterly
Pump, trash, 2", gas	Homelite	T-321	1995	Alameda - TD	Warehouse	1	240 gpm	Use/Quarterly
Pump, trash, 2", gas	Homelite	4006	1995	Eureka - FES	Trailer 3107	1	240 gpm	Use/Quarterly
Pump, trash, 2", gas	Robin	T-322	1996	Alameda - TD	Warehouse	1	240 gpm	Use/Quarterly
Pump, trash, 3", gas	Homelite	4005	1995	Alameda - FES	Yard	1	340 gpm	Use/Quarterly
Pump, trash, 3", gas	Homelite	T-320	1995	Alameda - TD	Warehouse	1	340 gpm	Use/Quarterly
Various hand tools and supplies	Various	N/A	Var.	Eureka - FES	Trailer 3107	1	N/A	Various
Various hand tools and supplies	Various	N/A	Var.	Alameda - FES	Trailer 3026	Misc.	N/A	Various

FES = Foss Environmental Services Company; FMC = Foss Maritime Company; TD = Trident



FOSS ENVIRONMENTAL RESOURCES

SAN FRANCISCO COTP ZONE

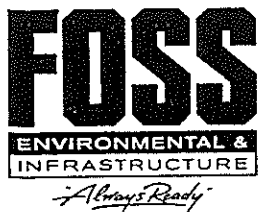
STORAGE & OFFLOADING

Description	Make	ID No.	Date	Location	Storage	Qty.	Each (bbl)	Total (bbl)	Eff.	Derated	Maint.
Barge Tankage	Trident	N/A	Var.	Alameda - TD	Moorage	3	1,667	5,000	100%	5,000	Per ABS
Barge Tankage	Dusk*	D619729	1980	Richmond - FMC	Moorage	1	25,000	25,000	50%	12,500	Per ABS
Barge Tankage	Foss 248-P3 *	D623750	1980	Puget Sound - FMC	Moorage	1	26,100	26,100	50%	13,050	Per ABS
Barge Tankage	Oiler	D510568	1967	Richmond - FMC	Moorage	1	21,100	21,100	50%	10,550	Per ABS
Barge Tankage	San Pedro	D631605	1981	Richmond - FMC	Moorage	1	17,254	17,254	50%	8,627	Per ABS
Barge Tankage	Foss 111*	D291267	1963	Richmond - FMC	Moorage	1	21,403	21,403	50%	10,702	Per ABS
Drum, open top	17H	N/A	N/A	Alameda - FES	Yard	40	1	52	100%	52	N/A
Drum, open top	17H	N/A	N/A	Eureka - FES	Whse	20	1	26	100%	26	N/A
Drum, open top	17E	N/A	N/A	Alameda - FES	Yard	40	1	52	100%	52	N/A
Drum, open top	17H	N/A	N/A	Alameda - FES	Yard	20	1	14	100%	14	N/A
Drum, open top	Overpack	N/A	N/A	Alameda - FES	Yard	15	2	30	100%	30	N/A
Drum, open top	Overpack	N/A	N/A	Eureka - FES	Whse.	15	2	30	100%	30	N/A
Pillow Tank	Canflex/DLE-4	3075	1991	Alameda - FES	SL Trailer	1	24	24	100%	24	Use/Year
Pillow Tank	Canflex/DLE-4	3080	1991	Alameda - FES	SL Trailer	1	24	24	100%	24	Use/Year
Pillow Tank	Canflex/DLE-4	3081	1991	Alameda - FES	SL Trailer	1	24	24	100%	24	Use/Year
Portable Tank	Baker	N/A	Var.	Pittsburg	Trailer	105	Various	43,869	50%	21,935	Vendor
Vacuum Trailer	Martin	3028	1979	Alameda - FES	Vehicle	1	120	120	100%	120	Use
Vacuum Trailer	Martin	3030	1979	Alameda - FES	Vehicle	1	120	120	100%	120	Use/Week
Vacuum Trailer	Thompson	2063	2000	Alameda - FES	Vehicle	1	120	120	100%	120	Use/Week
Vacuum Trailer	Certified	3012	1992	Alameda - FES	Vehicle	1	130	130	100%	130	Use/Week
Vacuum Trailer	Freightliner	T-210	1994	Alameda - TD	Vehicle	1	70	70	100%	70	Use/Week
Bin - 20' Contain	ESP	3129	2000	Alameda - FES	Yard	1	20 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 20' Contain	ESP	3130	2000	Alameda - FES	Yard	1	20 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 20' Contain	ESP	3131	2000	Alameda - FES	Yard	1	20 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 20' Contain	ESP	3132	2000	Alameda - FES	Yard	1	20 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 20' Contain	ESP	3136	2000	Alameda - FES	Yard	1	20 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 20' Contain	ESP	3137	2000	Alameda - FES	Yard	1	20 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 20' Contain	ESP	3140	2000	Alameda - FES	Yard	1	20 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 20' Contain	ESP	3141	2000	Alameda - FES	Yard	1	20 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 20' Contain	ESP	3142	2000	Alameda - FES	Yard	1	20 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 40' Contain	ESP	3138	2000	Alameda - FES	Yard	1	40 yard	20 yard	100%	N/A	Use/Qtr.
Bin - 40' Contain	ESP	3139	2000	Alameda - FES	Yard	1	40 yard	20 yard	100%	N/A	Use/Qtr.

Total Derated Storage Capacity

83,200 barrels

* Ocean Certified



FOSS ENVIRONMENTAL RESOURCES

PORTLAND COTP ZONE

TRANSPORTATION & COMMUNICATIONS

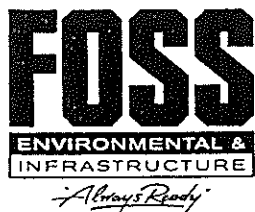
Description	Make/Model	I.D. No.	Date	Location	Storage	Qty.	Maintenance
ATV, 2X4	Polaris 250		1999	Portland - FES	Vehicle	1	Quarterly
ATV, 6X4, Utility Bed	J. Deere Gator		1999	Portland - FES	Vehicle	1	Quarterly
ATV, 6X4, Utility Bed	J. Deere Gator		1999	Roseburg - FES	Vehicle	1	Quarterly
Barge, Chip	Various	N/A	Var.	Portland - FMC	Moorage	10	ABS
Barge, Container	Various	N/A	Var.	Portland - FMC	Moorage	2	ABS
Barge, Deck	Various	N/A	Var.	Portland - FMC	Moorage	2	ABS
Barge, Pulp	Various	N/A	Var.	Portland - FMC	Moorage	2	ABS
Trailer, ATV Transport, 15'	Big Tex	6364	1999	Portland - FES	Trailer	1	Quarterly
Trailer, ATV Transport, 15'	Big Tex	6363	1999	Roseburg - FES	Trailer	1	Quarterly
Trailer, response, 12'	Wells Cargo	3061	1985	Roseburg - FES	Trailer	1	Quarterly
Trailer, response, 24'	Wells Cargo	3062	1986	Portland - FES	Trailer	1	Quarterly
Trailer, response, 45' *	Wells Cargo	3057	1989	Portland - FES	Trailer	1	Quarterly
Trailer, wildlife rescue, 40'	FrueHauf	3099	1986	Portland - FES	Trailer	1	Quarterly
Truck, diesel, crew cab, flatbed, 10K gr.	Ford F-450	1120	2000	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, crew cab, flatbed, 10K gr.	Ford F-350	1119	2000	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, crew cab, flatbed, 10K gr.	Ford F-450	1105	2000	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, crew cab, flatbed, 10K gr.	Ford F-350	1104	2000	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, 3/4 ton	Ford F-250	1115	2000	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, 3/4 ton	Ford F-250	1097	1999	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, 3/4 ton	Ford F-250	1096	1999	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, 3/4 ton	Ford F-250	1073	1997	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, 3/4 ton	Ford F-250	1072	1997	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, 3/4 ton	Ford F-250	1070	1997	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, 3/4 ton	Ford F-250	1054	1997	Portland - FES	Vehicle	1	Quarterly
Truck, diesel, pickup, 3/4 ton, 4x4	Ford F-250	1067	1997	Roseburg - FES	Vehicle	1	Quarterly
Truck, Drop Box & Drop Box Trailer	Kenworth	2060	1996	Portland - FES	Vehicle	1	Quarterly
Van, diesel, response, 1 ton	Ford E-350	1102	1995	Portland - FES	Vehicle	1	Quarterly

* Outfitted with equipment, materials, ppe and hand tools to support a minimum of 150 personnel for shoreline cleanup

Cellular Phone	Various	N/A	Var.	Portland - FES	Office	20	As Needed
Radio, VHF	ICOM & Standard	N/A	1991	Portland - FES	Office	10	As Needed

24-Hour Customer Service Center in Portland equipped w/ UHF, VHF, SSB & Microwave Links - outposts in Aberdeen, Rainier and Astoria.

FES = Foss Environmental Services Company; FMC = Foss Maritime Company



FOSS ENVIRONMENTAL RESOURCES

PORTLAND COTP ZONE

CONTAINMENT BOOM & VESSELS

Description	Make	I.D. No.	Date	Location	Storage	Size (in)	Qty.	Enviorn.	Maintenance
Expandable Boom	Versatek	3078	1991	Aberdeen - Port	20' Container	12 x 18	3,000	Inland	Use/Yearly
Expandable Boom	Versatek	NA	1991	Aberdeen - Port	32' FRV	12 x 18	1,000	Inland	Use/Yearly
Contractor Boom	Am. Marine	6267	1999	Astoria - E Basin	32' FRV	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Am. Marine	N/A	1992	Astoria - FMC	100' Bundles	8 x 12	500	Inland	Use/Yearly
Contractor Boom	Am. Marine	6263, 54	1992	Astoria - Pier 1	35' Container	8 x 12	1,800	Inland	Use/Yearly
Expandable Boom	Versatek	6261	1991	Astoria - Pier 1	35' Container	12 x 18	1,000	Inland	Use/Yearly
Contractor Boom	Various	N/A	Var.	Various - FMC	Barge Bins	8 x 12	5,700	Inland	Use/Yearly
Contractor Boom	Am. Marine	6266	1999	Portland - FES	20' Container	8 x 12	1,200	Inland	Use/Yearly
Contractor Boom	Kepner	6146	1989	Portland - FES	20' Container	8 x 12	700	Inland	Use/Yearly
Contractor Boom	Am. Marine	6146	1999	Portland - FES	18' Trailer	8 x 12	1,300	Inland	Use/Yearly
Expandable Boom	Versatech	6149	1989	Portland - FES	20' Container	12 x 18	3,500	Inland	Use/Yearly
Contractor Boom	Am. Marine	6268	1991	Portland - FES	18' Trailer	8 x 12	500	Inland	Use/Yearly
Contractor Boom	Am. Marine	6265	1991	Portland - FES	20' Container	6 x 6	400	Inland	Use/Yearly
Contractor Boom	Am. Marine	N/A	1990	Portland - FMC	100' Bundles	8 x 12	500	Inland	Use/Yearly
Contractor Boom	Am. Marine	6263	1999	Portland - FMC	34' FRV	8 X 12	1,000	Inland	Use/Yearly
Contractor Boom	Kepner	N/A	Var.	Portland - WCM	Vendor	8 x 12	2,250	Inland	Use/Yearly
Contractor Boom	Various	N/A	Var.	Rainier - FMC	100' Bundles	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Am. Marine	6145	1993	Rainier - FMC	20' Container	8 x 12	1,000	Inland	Use/Yearly
Contractor Boom	Am. Marine	6268	1990	Rainier - Shipyard	25' SRV	6 x 12	700	Inland	Use/Yearly
Contractor Boom	Am. Marine	6145	1991	St. Helens - BC	18' Trailer	8 x 12	1000	Inland	Use/Yearly
Contractor Boom	Am. Marine	6269	1991	Wauna - JR	18' Trailer	8 x 12	1000	Inland	Use/Yearly
Expandable Boom	Versatek	6258	1991	Westport - Marina	34' FRV	12 x 18	1000	Inland	Use/Yearly

Total Containment Boom

31050

Description	Make	I.D. No.	Date	Location	Storage	Size (ft)	Qty.	Spd. (kts)	Maintenance
Fast Response Vessel	Kvichak	6038	1991	Aberdeen - Port	Moorage	32	1	30	Use/Monthly
Fast Response Vessel	Kvichak	6036	1991	Astoria - E Basin	Moorage	32	1	30	Use/Monthly
Fast Response Vessel	Raider	6028	1972	Portland - CG	Moorage	34	1	30	Use/Monthly
Fast Response Vessel	Raider	6026	1991	Westport - Marina	Moorage	34	1	30	Use/Monthly
Skiff w/ outboard	Lund	6216	1985	Wauna - JR	Trailer	12	1	15	Use/Monthly
Skiff w/ outboard	Lund	6017	1985	Portland - FES	Response Van	12	1	15	Use/Monthly
Skiff w/ outboard	Greenwater	6025	Var.	Portland - FES	None	12	1	15	Use/Monthly
Spill Response Vessel	Munson	6035	1989	Rainier - FMC	Moorage	25	1	35	Use/Monthly
Spill Response Vessel	Bos. Whaler	6015	1982	Portland - FES	Trailer	21	1	35	Use/Monthly
Workboat	Lund	6322	1980	St. Helens - BC	Trailer	18	1	20	Use/Monthly
Workboat	Monark	6018	1980	Portland - FES	Trailer	18	1	20	Use/Monthly
Workboat	Monark	6019	1980	Portland - FES	Trailer	18	1	20	Use/Monthly
Workboat	Monark	6016	1980	Portland - FES	Trailer	16	1	20	Use/Monthly
Workboat	Monark	6020	1980	Portland - FES	Trailer	16	1	20	Use/Monthly
Workboat	Monark	6024	1980	Portland - FES	Trailer	16	1	20	Use/Monthly
Workboat	Monark	6184	1980	Portland - FES	Trailer	16	1	20	Use/Monthly
Workboat	Bos. Whaler	6023	1974	Portland - FES	Trailer	16	1	25	Use/Monthly
Workboat	Auburn	6022	1980	Roseburg - FES	Trailer	16	1	20	Use/Monthly
Foss Maritime Tugs	Various	N/A	Var.	Various - FMC	Moorage	Var.	21	Var.	Per ABS

Total Boats

39

FES = Foss Environmental Services; FMC = Foss Maritime Company; BC = Boise Cascade; WCM = West Coast Marine;
JR = James River; CG = Cascade General



FOSS ENVIRONMENTAL RESOURCES

LONG BEACH COTP ZONE

STORAGE & OFFLOADING

Description	Make	ID No.	Date	Location	Storage	Qty.	Each (bbl)	Total (bbl)	Eff.	Derated	Maint.
Drum	Various	N/A	N/A	Long Beach - FES	Whse.	25	1	33	100%	33	N/A
Portable Tank	Various	N/A	Var.	Southgate - BKR	Vendor	105	Various	43,869	50%	21,935	Vendor
Portable Tank	Various	N/A	Var.	Southgate - RFR	Vendor	60	Various	15,214	50%	7,607	Vendor
Vacuum Trailer	Certified	3034	1985	Long Beach - FES	Trailer	1	120	120	100%	120	Weekly
Vacuum Trailer	Certified	3035	1985	Long Beach - FES	Trailer	1	120	120	100%	120	Weekly
Vacuum Trailer	Petro Steel	3105	1991	Long Beach - FES	Trailer	1	24	24	100%	24	Weekly
Vacuum Truck	White	2500	1980	Long Beach - FES	Vehicle	1	35	35	100%	35	Weekly
Barge Tankage	FOSS 208	D919254	1987	Portland - FMC	Moorage	0	16,530	0	50%	0	Per ABS
Barge Tankage	VBS 101	589535	1978	Long Beach - FMC	Moorage	1	10,100	10,100	50%	5,050	Per ABS
Barge Tankage	VBS 102	589536	1978	Long Beach - FMC	Moorage	1	10,100	10,100	50%	5,050	Per ABS
Barge Tankage	WT 25 *	506077	1966	Long Beach - FMC	Moorage	1	24,600	24,600	50%	12,300	Per ABS
Barge Tankage	WT 30 *	523804	1969	Long Beach - FMC	Moorage	1	29,240	29,240	50%	14,620	Per ABS

Total Derated Storage Capacity 66,893 barrels

FES = Foss Environmental Services Company; FMC = Foss Maritime Company

* Ocean Certified

APPENDIX C

DETERMINATION AND EVALUATION OF
REQUIRED RESPONSE RESOURCES

APPENDIX C

DETERMINATION AND EVALUATION OF REQUIRED RESPONSE RESOURCES

Procedures to identify appropriate response resources for responding to a worst case discharge at the facility are determined in this appendix based on guidelines provided in 40 CFR 112, Appendix E.

The required recovery capacities of response equipment identified by the OSRO in Appendix B of this Plan is calculated using the Worksheet provided in Attachment E-1 of 40 CFR 112, Appendix E. A summary of the calculation is included in Section C.5, below. A copy of the Worksheet and applicable tables referenced in the Worksheet is included on Pages C-6 through C-9.

C.1 EQUIPMENT OPERABILITY AND READINESS

The equipment identified in this Plan is designed to operate in the conditions expected in the vicinity of the Plant and incorporates a consideration of potentially adverse operating environments.

As required, the inherent limitations of the operability of equipment components and response systems are also considered herein. The criteria indicated in the attached Tables are used to evaluate the operability under conditions likely to prevail in a variety of operating environments.

The Worksheet lists the criteria for oil recovery devices and boom capable of being safely operated in the conditions listed for the applicable operating environment according to the recommended parameter values included in 40 CFR 112, Appendix E (e.g., mobilization factors, oil types).

The OSRO or Contractor shall refer to the applicable Area Contingency Plan (ACP), as appropriate, to determine if ice, debris, and weather-related visibility are significant factors to evaluate operability of equipment. Excerpts from the ACP are included in Appendix F of this Plan.

This discussion includes information on response resource mobilization and response times, and incorporates the distance of the Plant from the storage location of the response resources in order to determine whether the resources can arrive on scene within the stated time. Resources required to meet small, medium, and worst case discharge requirements are discussed below. In accordance with guidance provided in Appendix E (Section 2.6) of 40 CFR 112, an on-water speed of 5 knots and a land speed of 35 miles per hour are assumed, unless the facility owner or operator can demonstrate otherwise.

C.2 SMALL DISCHARGES

A small discharge is defined as any discharge volume less than or equal to 2,100 gallons. The equipment must be designed to function in the operating environment at the point of expected use.

As summarized in 40 CFR 112, the identified response resources shall, as appropriate, include:

- 1,000 feet of containment boom and a means of deploying it within 1 hour of the discovery of a spill.
- Oil recovery devices capable of sustaining an effective recovery capacity of 2,100 gpd and capable of arriving on-scene within 2 hours.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery capacity required onsite (i.e., 4,200 gallons).

C.3 MEDIUM DISCHARGES

A medium discharge is defined as any discharge volume less than or equal to 36,000 gallons but greater than 2,100 gallons. The equipment must be designed to function in the local operating environment anticipated in the vicinity of the Plant.

As provided in 40 CFR 112, Section E.4.3, oil recovery devices identified to meet the applicable planning criteria for a medium discharge volume (i.e., 36,000 gallons) must be located such that they are capable of arriving on scene within 6 hours (for San Francisco Bay and other high volume port areas).

Because rapid control, containment and removal of oil are critical to reduce spill impact, identification of response resources has been based on the effective daily recovery capacity required for oil recovery devices. The effective daily recovery capacity for oil recovery devices

has been determined to be 50 percent of the planning volume (i.e., 18,000 gallons per day) per Section 4.4 of 40 CFR 112, Appendix E.

In addition to oil recovery capacity, the Plan identifies sufficient quantity of containment boom available, by contract with the OSRO, which can arrive within the required response time for oil collection and containment and for protection of fish and wildlife and sensitive environments. Locations of fish and wildlife and sensitive environments, identified in the ACP, are included in Appendix F of this Plan.

Response planning also includes the capability to arrange for disposal of recovered oil products. In accordance with Section 4.6 of 40 CFR 112, Appendix E, oil storage capacity for recovered oily material equivalent to twice the effective daily recovery capacity (i.e., 36,000 gallons) is required onsite.

C.4 WORST CASE DISCHARGE

Duke has contracted an OSRO with sufficient response resources to respond to the worst case discharge of oil to the maximum extent practicable. The required response capacities are calculated in the attached Worksheet and the calculation is described in the Section C.5.

These response resources are located such that they are capable of arriving at the scene of a discharge within the times specified for each response tier as follows:

- Tier 1: 6 hours
- Tier 2: 30 hours
- Tier 3: 54 hours

The three levels of response tiers apply to the amount of time for response resources to arrive at the scene of a spill in order to respond to the worst case discharge planning volume calculated in Section C.5.

C.5 CALCULATION OF REQUIRED RESPONSE RESOURCES FOR WORST CASE DISCHARGE

The discussion in this section is included as an explanation of the calculation provided in the attached Worksheet (Page C-6). The calculation provided in the Worksheet is based entirely on the required procedure specified in Attachment E-1 to 40 CFR 112, Appendix E. The objective

of the Worksheet is to determine the level of response resources required for potential spills based on EPA's calculation methodology and the facility's oil storage capacity, operating area, and type of oil stored.

C.5.1 PART I - BACKGROUND INFORMATION

The worst case discharge planning volume for single tank facilities with secondary containment is equal to 80 percent of the capacity of the storage tank (i.e., 40,000 barrels or 1,680,000 gallons) in accordance with guidance included in Part A of 40 CFR 112, Appendix D.

The oil group for the fuel contained in the single aboveground storage tank is identified as a Group I oil, based on the reported distillation temperature for Jet Fuel-A and Diesel Oil #2, in accordance with Section 1.2 of 40 CFR 112, Appendix E. The MSDS for Jet Fuel-A and Diesel Oil #2 are provided in Appendix G of this Plan.

The operating area of the Plant is specified as a Near-Shore Area. The percentages of oil lost to natural processes, recovered floating, and remaining onshore are specified in Table 2 of 40 CFR 112, Appendix E, for the oil group and facility environment. Similarly, the Emulsification Factor, the On-Water Oil Recovery Resource Mobilization Factors, and the Response Capability Caps to be used in the calculation are specified in 40 CFR 112, Appendix E, Tables 3, 4 and 5, respectively. As indicated in the Worksheet, the volume of oil to be recovered as floating oil on water (On-Water Oil Recovery) is calculated as 20 percent of the worst case discharge volume or 8,000 barrels. In addition, the volume of oil to be recovered on-shore (Shoreline Recovery) is calculated at 10 percent of the worst case discharge volume or 4,000 barrels.

C.5.2 PART II - ON-WATER OIL RECOVERY CAPACITY

On-Water Oil Recovery Capacities are determined for three tiers corresponding to the three On-Water Oil Recovery Resource Mobilization Factors specified in Table 4 of 40 CFR 112, Appendix E. The On-Water Oil Recovery Capacities, in barrels per day (bpd) for the Plant are 1,200, 2,000, and 3,200 bpd, respectively, based on the On-Water Oil Recovery of 8,000 barrels calculated in Part I.

Response planning also includes the capability to arrange for disposal of recovered oil products. In accordance with Section 5.5 and 12.2 of 40 CFR 112, Appendix E, oil storage capacity for

recovered oily material equivalent to twice the effective daily recovery capacity (i.e., 2,400, 4,000, and 6,400 barrels, respectively) is required onsite.

This Plan identifies sufficient quantity of containment boom available in the event of a worst case discharge, by contract with the OSRO, which can arrive within the required response time for oil collection and containment and for protection of fish and wildlife and sensitive environments.

C.5.3 PART III - SHORELINE CLEANUP VOLUME

For the purposes of planning response resources, the volume of oil required to be cleaned up from the shore of an impacted area (i.e., Shoreline Cleanup Volume) is determined by multiplying the fraction of oil onshore (4,000 barrels) by the emulsification factor specified for the Group 1 oil (i.e., 1.0). Therefore, as indicated in the Worksheet, the Shoreline Cleanup Volume is 4,000 barrels.

C.5.4 PART IV - ON-WATER RESPONSE CAPACITY BY OPERATING AREA

Response Capability Caps are specified for the Plant (i.e., for a near-shore area) in Table 5 of 40 CFR 112, Appendix E. These caps represent the amount of oil capable of being recovered from the water, and which must be contracted for as part of the FRP. The caps are specified for Tiers 1, 2 and 3 as 12,500 bpd, 25,000 bpd and 50,000 bpd, respectively.

C.5.5 PART V - ON-WATER AMOUNT NEEDED TO BE IDENTIFIED, BUT NOT CONTRACTED FOR IN ADVANCE

As indicated in the Worksheet, the On-Water Recovery Capacities for Tiers 1, 2 and 3 for inland areas (Worksheet Part II) are less than the applicable response capacity caps by Operating Area specified by the EPA (Worksheet Part IV). Therefore, the Plant is only required to contract for a response to 1,200 bpd for Tier 1, 2,000 bpd for Tier 2, and 3,200 bpd for Tier 3. No additional resources are required to be identified.

ATTACHMENTS TO APPENDIX E

Attachment E-1 --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum OilsPart I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D)
(50,000 x 0.80) 40,000
(A)

Step (B) Oil Group¹ (Table 3 and section 1.2 of this appendix) . I

Step (C) Operating Area (choose one) X Near
shore/Inla
nd Great
Lakes or Rivers
and
Canals

Step (D) Percentages of Oil (Table 2 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
80	20	10
(D1)	(D2)	(D3)

(0.20 x 40,000)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2)} \times \text{Step (A)}}{100}$ 8,000
(E1)

(0.10 x 40,000)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3)} \times \text{Step (A)}}{100}$ 4,000
(E2)

Step (F) Emulsification Factor
(Table 3 of this appendix) 1.0
(F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor
(Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
0.15	0.25	0.40
(G1)	(G2)	(G3)

¹ A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

Attachment E-1 (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
1,200	2,000	3,200
Step (E1) x Step (F) x Step (G1) (8,000 x 1.0 x 0.15)	Step (E1) x Step (F) x Step (G2) (8,000 x 1.0 x 0.25)	Step (E1) x Step (F) x Step (G3) (8,000 x 1.0 x 0.40)

Part III <u>Shoreline Cleanup Volume</u> (barrels)	4,000
	Step (E2) x Step (F) (4,000 x 1.0)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
12,500	25,000	50,000
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
0	0	0
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

TABLE 1 TO APPENDIX E—RESPONSE RESOURCE OPERATING CRITERIA

Oil Recovery Devices				
Operating environment		Significant wave height ¹		Sea state
Rivers and Canals		≤ 1 foot		1
Inland		≤ 3 feet		2
Great Lakes		≤ 4 feet		2-3
Ocean		≤ 6 feet		3-4
Boom				
Boom property	Use			
	Rivers and canals	Inland	Great Lakes	Ocean
Significant Wave Height ¹	≤ 1	≤ 3	≤ 4	≤ 6
Sea State	1	2	2-3	3-4
Boom height—feet (draft plus freeboard)	6-18	18-42	18-42	≥ 42
Reserve Buoyancy to Weight Ratio	2:1	2:1	2:1	3:1 to 4:1
Total Tensile Strength—pounds	4,500	15,000-20,000	15,000-20,000	≥ 20,000
Skirt Fabric Tensile Strength—pounds	200	300	300	500
Skirt Fabric Tear Strength—pounds	100	100	100	125

¹ Oil recovery devices and boom shall be at least capable of operating in wave heights up to and including the values listed in Table 1 for each operating environment.

TABLE 2 TO APPENDIX E.—REMOVAL CAPACITY PLANNING TABLE FOR PETROLEUM OILS

Spill location	Rivers and canals			Near shore/Inland		
Sustainability of on-water oil recovery	3 days			4 days		
Oil group ¹	Percent natural dissipation	Percent re-covered floating Oil	Percent oil onshore	Percent natural dissipation	Percent re-covered floating oil	Percent oil onshore
1—Non-persistent oils	80	10	10	80	20	10
2—Light crudes	40	15	45	50	50	30
3—Medium crudes and fuels	20	15	65	30	50	50
4—Heavy crudes and fuels	5	20	75	10	50	70

¹ The response resource considerations for non-petroleum oils other than animal fats and vegetable oils are outlined in section 7.7 of this appendix.

Note: Group 5 oils are defined in section 1.2.8 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix.

TABLE 3 TO APPENDIX E—EMULSIFICATION FACTORS FOR PETROLEUM OIL GROUPS ¹

Non-Persistent Oil:	
Group 1	1.0
Persistent Oil:	
Group 2	1.8
Group 3	2.0
Group 4	1.4

TABLE 3 TO APPENDIX E—EMULSIFICATION FACTORS FOR PETROLEUM OIL GROUPS ¹—Continued

Group 5 oils are defined in section 1.2.7 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix.

¹ See sections 1.2.2 and 1.2.7 of this appendix for group designations for non-persistent and persistent oils, respectively.

TABLE 4 TO APPENDIX E—ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

Operating area	Tier 1	Tier 2	Tier 3
Rivers and Canals	0.30	0.40	0.60
Inland/Nearshore Great Lakes	0.15	0.25	0.40

Note: These mobilization factors are for total resources mobilized, not incremental response resources.

TABLE 5 TO APPENDIX E—RESPONSE CAPABILITY CAPS BY OPERATING AREA

	Tier 1	Tier 2	Tier 3
February 18, 1993:			
All except Rivers & Canals, Great Lakes	10K bbls/day	20K bbls/day	40K bbls/day.
Great Lakes	5K bbls/day	10K bbls/day	20K bbls/day.
Rivers & Canals	1.5K bbls/day	3.0K bbls/day	6.0K bbls/day.
February 18, 1998:			
All except Rivers & Canals, Great Lakes	12.5K bbls/day	25K bbls/day	50K bbls/day.
Great Lakes	6.35K bbls/day	12.3K bbls/day	25K bbls/day.
Rivers & Canals	1.875K bbls/day	3.75K bbls/day	7.5K bbls/day.
February 18, 2003:			
All except Rivers & Canals, Great Lakes	TBD	TBD	TBD.
Great Lakes	TBD	TBD	TBD.
Rivers & Canals	TBD	TBD	TBD.

Note: The caps show cumulative overall effective daily recovery capacity, not incremental increases.
TBD=To Be Determined.

APPENDIX D
CALCULATION OF THE PLANNING DISTANCE

APPENDIX D

CALCULATION OF THE PLANNING DISTANCE

In accordance with 40 CFR 112.20 (h)(4), the planning distance has been calculated to determine the potential for spilled oil to impact navigable waters or sensitive environments. The planning distance is a conservative measure of the maximum distance of potential impact to navigable waters, their shorelines, or other sensitive environments which could occur in the event of a catastrophic discharge from the Plant. As such, the planning distance involves the most rapid discharge pathway by which spilled oil could reach these environments and thus corresponds to the area of maximum potential impact.

As described below, the appropriate planning distance for this facility is 5 miles and consists of transport mechanisms over land (instantaneous) and on tidal-influence areas (5 miles).

D.1 OIL TRANSPORTED OVER LAND

In the likelihood of a worst case discharge, spilled oil from the Fuel Storage Tank could potentially flow as surface drainage (i.e., sheet flow) to the three catch basins outside the secondary containment area (most rapid flow path) and discharge to the Oakland Inner Harbor. Storm drains indented for drainage may provide a direct pathway to navigable waters regardless of the length of the drainage pipe. Pursuant to Section 5.5 of 40 CFR Part 112, Appendix C, if the distance from the nearest opportunity for discharge to a storm drain leading to navigable water is less than or equal to 0.5 mile, the time required for oil to travel the distance from the storm drain to the navigable water is considered to be virtually instantaneous. Therefore, it is assumed that once oil reaches the catch basins outside the containment area, oil will be discharged into the receiving navigable water.

D.2 OIL TRANSPORTED ON TIDAL-INFLUENCE AREAS

The method to determine oil transport on tidal influence areas is based on the type of oil discharged and the distance down current during ebb tide and up current during flood tide to the point of maximum tidal influence. Pursuant to Section 4.2 of 40 CFR Part 112, Appendix C, for non-persistent or Group I oils (Jet fuel-A or Diesel Oil) discharged into tidal waters, the planning distance is 5 miles from the facility down current during ebb tide and to the point of maximum

tidal influence or 5 miles, whichever is less during flood tide. Therefore, the introduction of oil into the Oakland Inner Harbor would result in a release extending far enough down current during ebb tide as to potentially impact two sensitive sites identified in the applicable Area Contingency Plan (ACP) (Sensitive Site No. SF-351-A "Yerba Buena Island," and Sensitive Site No. SF-303A "San Leandro Bay"). These sites are located within 5 miles northwest and southeast of the Plant, respectively. The location of nearby wetland and other sensitive areas near the facility are shown in Appendix F.

APPENDIX E
INVENTORY AND SPILL PREDICTION DATA

INVENTORY AND SPILL PREDICTION DATA OAKLAND POWER PLANT

Page 1 of 2

TYPE OF CONTAINER	NUMBER OF ITEMS	VOLUME PER CONTAINER (gallons)	TOTAL VOLUME (gallons)	TYPE OF FLUID	LOCATION(1)	PURPOSE	MAJOR CAUSE OF SPILL OR FAILURE	AMOUNT OF SPILL (gallons)	DIRECTION OF FLOW
A. OPERATING SYSTEMS AND EQUIPMENT									
Generator Oil Reservoir	3	550	1,650	Lubricating Oil	1C, 1D, 3D	Operating Units	Line Leak/ System Failure	0-550	Floor Drains to Oily Water Storage Tank
Engine Oil Reservoir	12	25	300	Lubricating Oil	1C, 1E, 3D	Operating Units	Line Leak/ System Failure	0-25	Floor Drains to Oily Water Storage Tank
B. OPERATING ELECTRICAL EQUIPMENT - POWER PLANT SWITCHGEAR AREAS									
No. 9 Transformer	1	6,756	6,756	Mineral Oil	3E	Operating Electrical Equipment	Casing Rupture	0-6,756	Flow via Storm Drain to Rain Water Collection Pond
No. 8 Transformer	1	5,266	5,266	Mineral Oil	2E	Operating Electrical Equipment	Casing Rupture	0-5,266	Flow via Storm Drain to Rain Water Collection Pond
No. 7 Transformer	1	4,816	4,186	Mineral Oil	2B	Operating Electrical Equipment	Casing Rupture	0-4,816	Flow via Storm Drain to Rain Water Collection Pond
No. 4 Auxiliary Bank Transformer	1	286	286	Mineral Oil	3B	Operating Electrical Equipment	Casing Rupture	0-286	Flow via Storm Drain to Rain Water Collection Pond
Small Transformer	1	150	150	Mineral Oil	3B	Operating Electrical Equipment	Casing Rupture	0-150	Flow via Storm Drain to Rain Water Collection Pond
C. ABOVEGROUND TANKS(2)									
Fuel Oil Storage Tank	1	2.1 million	2.1 million	Fuel Oil	2G - 2I 3G - 3I	Interim Oil Storage	Supply Line Rupture/Leakage	0-1,000	Within Containment Area
Oily Water Storage Tank	1	4,500	4,500	Oil Water	4B	Interim Oily Water Storage	Leakage/Rupture	0-1,000	Within Containment Area

INVENTORY AND SPILL PREDICTION DATA OAKLAND POWER PLANT (Continued)

Page 2 of 2

TYPE OF CONTAINER	NUMBER OF ITEMS	VOLUME PER CONTAINER (gallons)	TOTAL VOLUME (gallons)	TYPE OF FLUID	LOCATION ⁽¹⁾	PURPOSE	MAJOR CAUSE OF SPILL OR FAILURE	AMOUNT OF SPILL (gallons)	DIRECTION OF FLOW
D. OTHER									
Diesel Dump Tank	3	120	360	Waste Oil	2B, 2E, 3D	Interim Storage	Rupture	0-120	Within Concrete Vault
Unit 1 Bay Storage (Drums)	Varies	5-55	Varies	Various Petroleum By-Products	1A - 1B	Interim Storage	Leakage	0-50	To Floor Drains and No. 3 Sump
Water Fuel Separator Filter	3	25	75	Fuel Oil	2C, 2E, 3D	Filter	Leakage/Rupture	0 - 25	Floor Drains to Oily Water Storage Tank

31180Oakland (8/27/01) (b)

- (1) Location is keyed to grid indicated on Facility Layout/Drainage Map (Figure 3). For example, Location "3B" refers to grid location defined by Row 3, Column B.
- (2) The Fuel Oil Storage Tank is located in an enclosed area across Jefferson Street. Although the capacity of the Oily Water Storage Tank is approximately 9,400 gallons, the tank is maintained below 4,500 gallons in accordance with applicable Resource Conservation and Recovery Act (RCRA) regulations.

APPENDIX F
SENSITIVE AREA MAPS